

TRANSCRIPT OF RECORD

TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1918.

No. 664.

**THE HEBE COMPANY AND CARNATION MILK PRODUCTS
COMPANY, APPELLANTS,**

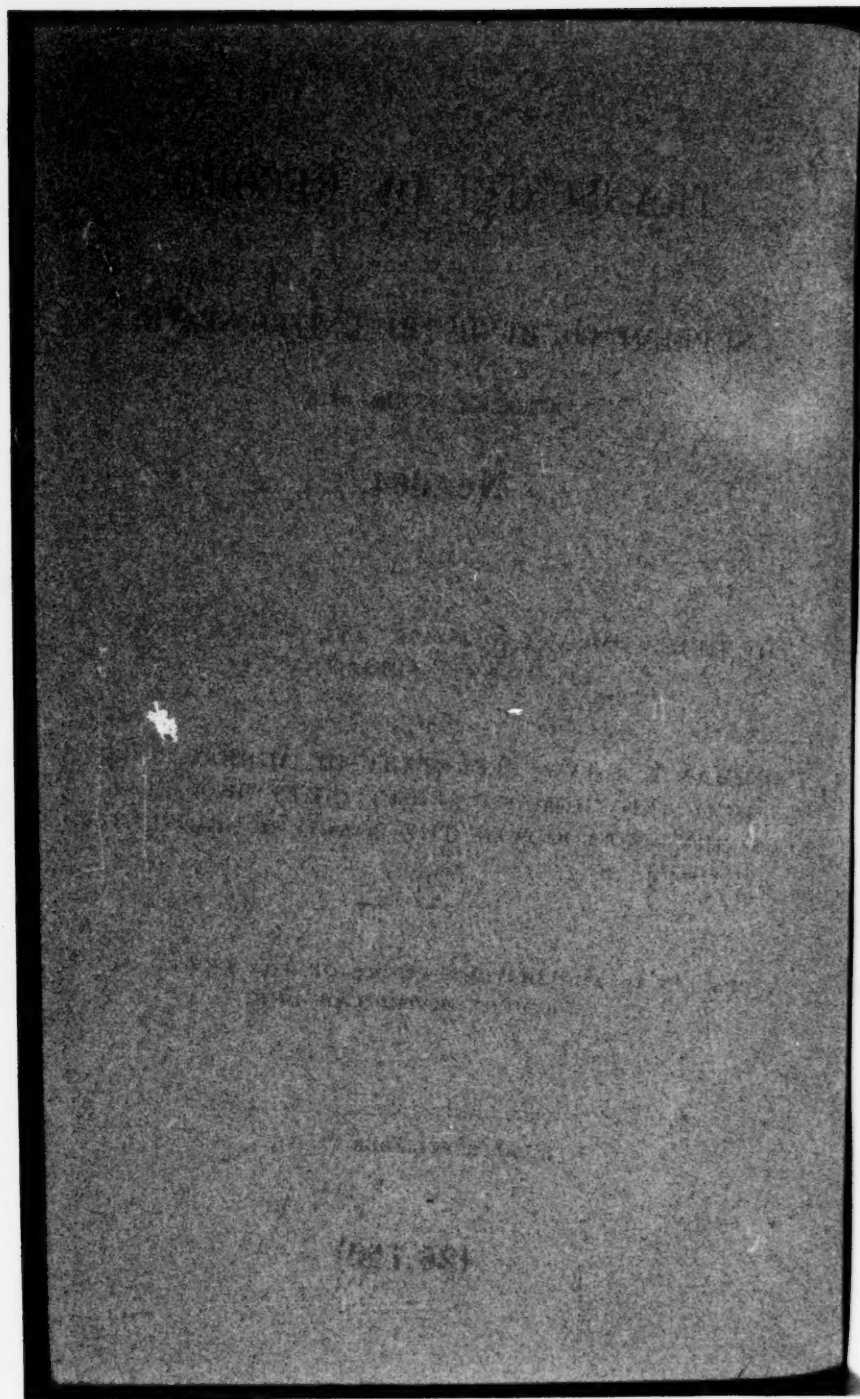
vs.

**NORMAN E. SHAW, SECRETARY OF AGRICULTURE OF
OHIO, AND THOMAS C. GAULT, CHIEF OF BUREAU OF
DAIRY AND FOODS OF THE BOARD OF AGRICULTURE
OF OHIO.**

**APPEAL FROM THE DISTRICT COURT OF THE UNITED STATES,
SOUTHERN DISTRICT OF OHIO.**

FILED SEPTEMBER 17, 1918.

(26,750)



(26,750)

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1918.

No. 664.

THE HEBE COMPANY AND CARNATION MILK PRODUCTS
COMPANY, APPELLANTS.

vs.

NORMAN E. SHAW, SECRETARY OF AGRICULTURE OF
OHIO, AND THOMAS C. GAULT, CHIEF OF BUREAU OF
DAIRY AND FOODS OF THE BOARD OF AGRICULTURE
OF OHIO.

APPEAL FROM THE DISTRICT COURT OF THE UNITED STATES,
SOUTHERN DISTRICT OF OHIO.

INDEX.

	Page
Bill of complaint.....	1
Answer	18
Waiver of plaintiffs and stipulations of all parties.....	27
Judgment	29
Petition for appeal.....	30
Assignment of errors.....	30
Order allowing appeal.....	34
Citation and service.....	34
Bond on appeal.....	35
Opinion	36
Stipulation and preceipe for record.....	46
Statement of evidence and certificate of appeal.....	47

	Original. Print
Stipulation of facts.....	49
Testimony of Clarence S. Stevens.....	52
Howard Beatty	56
Dr. E. J. Wilson.....	58
L. A. Scarbrough.....	63
Charles F. Healy.....	64
John A. Wesener.....	66
Exhibit 14—Paper showing analysis of "Hebe" and Carnation milk.....	67
15—Paper showing colored illustrations.....	68
Testimony of Curtis C. Howard.....	75
Charles F. Healy (recalled).....	77
Exhibit 16—Letter of Attorney General to Dr. C. L. Alsberg, dated July 21, 1916.....	78
17—Letter of W. P. Jones to Attorney General, dated August 2, 1917.....	79
Testimony of Arthur W. Reynolds.....	79
Edwin James	81
John L. Hutchinson.....	82
John F. Lyman.....	92
Dr. E. V. McCollum.....	98
Exhibit B—Article published in Hoard's Dairyman, entitled "The Present Situation in Nutrition".....	104
C—Paper entitled "The Distribution in Plants of the Fat Soluble A, the Dietary Essential of Butter Fat"	111
Testimony of Arthur G. Helmick.....	121
Oscar Erf	122
Exhibit D—Copy of F. L. D. 158, issued April 2, 1915, by the U. S. Department of Agriculture.....	125
Testimony of L. P. Bailey.....	126
Dr. John A. Wesener.....	127
Exhibit 6—Hebe label	129
7—Bulletin No. 505 of the U. S. Department of Agriculture..	130
8—Monthly bulletin of the Ohio Agricultural Experiment Station, Vol. 1, December, 1916.....	135
9—Bulletin No. 469 of the U. S. Department of Agriculture..	142
Stipulation as to exhibits.....	149
Judge's certificate to statement of evidence.....	150
Clerk's certificate	151
Citation and service.....	152

TRANSCRIPT OF RECORD

BILL OF COMPLAINT—Filed July 18, 1918.

The Hebe Company, a corporation duly organized and existing under the laws of the State of Washington, and a citizen and resident of the State of Washington, and having its principal place of business in the City of Seattle, in the said state, and Carnation Milk Products Company, a corporation duly organized and existing under the laws of the State of Maine, and a citizen and resident of the said State of Maine, and having its principal office in said state, and having numerous principal places of business throughout the United States outside of the State of Ohio, brings this their bill of complaint against the defendants, Norman E. Shaw, Secretary of Agriculture of Ohio, Thomas C. Gault, Chief of Bureau of Dairy and Foods of the Board of Agriculture of Ohio, and other officers and agents claiming to act under the authority of the said The Board of Agriculture of Ohio, or of the Secretary of Agriculture of Ohio, all of which defendants are citizens and residents of the said State of Ohio.

And thereupon plaintiffs complain and say:

1. Plaintiffs respectfully represent unto the court that they are engaged in manufacturing, shipping, transporting, selling and offering for sale, throughout the United States, and in the several states, including the State of Ohio, and in interstate commerce, a certain food product hereinafter described, the business of said Hebe Company being that of distribution of said product.

2. Plaintiffs solicit and take orders for said food product from customers in the State of Ohio and fill said orders by shipping said food product from their places of business in the United States outside of the State of Ohio to said customers in the State of Ohio.

3. The business of plaintiffs in said food product with customers in the State of Ohio is with wholesale dealers, jobbers and distributors residing in and doing business in the State of Ohio; and plaintiffs sell said food product to said wholesale dealers, jobbers and distributors and ship said product to them as aforesaid; said wholesale dealers, jobbers and distributors sell said product in said State of Ohio to retail dealers and others in said State of Ohio; and said retail dealers sell, offer for sale, expose for sale, and have in their possession with intent

to sell the said food product to consumers in the State of Ohio.

4. Said food product is sold by said wholesale dealers, jobbers, distributors and retail dealers in many of the principal cities, towns and villages of the said State of Ohio.

5. Plaintiffs aver that the amount involved in this controversy exceeds, exclusive of interest and costs, the sum of three thousand dollars; and that the value of the business, which plaintiffs seek to protect by this suit exceeds the sum of three thousand dollars, exclusive of interest and costs.

6. Plaintiffs' business with said customers as aforesaid in the State of Ohio, before the committing of the grievances hereinafter mentioned, resulted in fair and continuous profit, and has been built up by the expenditure of large sums of money in promoting said business.

7. Said food product shipped as aforesaid into the State of Ohio, and therein dealt in, handled and sold, as aforesaid by wholesale dealers, jobbers, distributors and retailers, is pure and wholesome and is not injurious or deleterious to health; it is composed of evaporated skimmed milk and a vegetable fat, to wit: cocoanut oil which has been highly refined and of the finest quality, and both of these ingredients are pure, wholesome and nutritious; the amount of said cocoanut oil in said product is six per cent. (6%), which is a substantial amount of fat in such a food product, and adds materially to the food value and usefulness of said food product, the balance of said product being evaporated skimmed milk; said evaporated skimmed milk and said vegetable fat are combined into a homogeneous mass as a result of a special process known to plaintiffs whereby said vegetable fat is caused to combine with said evaporated skimmed milk in such a way that said fat remains properly combined with said evaporated skimmed milk until said food product is ready for consumption, and said food product contains no other ingredients than as hereinabove stated; and when shipped into the State of Ohio and when handled, dealt in and sold by said wholesale dealers, jobbers, distributors and retail dealers in the State of Ohio, the said food product is at all times labeled as follows:

Net Contents 1 lb. Avoirdupois

Hebe

A Compound of

Evaporated Skimmed Milk

and Vegetable Fat

Contains 6% Vegetable Fat,

24% Total Solids.

Manufactured at Jefferson, Wis.

The Hebe Company

General Offices: Seattle, Wash.

Net Contents 1 lb. Avoirdupois

Hebe

A Compound of

Evaporated Skimmed Milk

and Vegetable Fat

Contains 6% Vegetable Fat,

24% Total Solids.

Manufactured at Jefferson, Wis.

The Hebe Company

General Offices: Seattle, Wash.

Patent
Applied
For

For Coffee and
Cereals
For Baking and
Cooking

Tall Size
48 Cans
per Case

When the said food product is shipped into the State of Ohio it is contained in tin cans of two sizes, one holding one pound of said product and the other holding six ounces; and each can bears the label aforesaid and no other label of any description; said cans labeled as aforesaid when shipped into the State of Ohio are packed in fibre shipping boxes or shipping cases, completely sealed, and completely concealing said cans and the labeling thereon, each case of one-pound cans containing 48 cans and each case of six-ounce cans containing 96 cans, which said shipping cases are used only as outer coverings for convenience in shipping and not as packages for the purpose of complete labeling, and when shipped in less-than-carload lots are marked only with the name of the consignee and such other data as necessary to insure proper identification of the product and delivery of the shipment, but when shipped in carload lots such cases are not marked with the name of the consignee. When said shipping cases are received by a retail dealer in the State of Ohio, the individual cans, labeled with the label hereinabove set out, are removed from said shipping cases, by such retail dealer and exposed for sale on the shelves of said retail dealer as individual units, and in the great majority of instances are purchased by consumers, one can at a time.

9. There are now in force and effect in the State of Ohio certain state laws dealing with the subject of foods and drinks, all of which laws were in full force and effect on and prior to June 1, 1915, and among such laws are found the following quoted sections of the General Code of Ohio:

“Section 5778. Food, drink, confectionery or condiments are adulterated within the meaning of this chapter (1) if any substance or substances have been mixed with it, so far as to lower or depreciate or injuriously affect its quality, strength or purity; (2) if any inferior or cheaper substance or substances have been substituted wholly, or in part, for it; (3) if any valuable or necessary constituent or ingredient has been wholly, or in part, abstracted from it; (4) if it is an imitation of, or is sold under the name of another article; (5) if it consists wholly, or in part, of a diseased, decomposed, putrid, infected, tainted or rotten animal or vegetable substance or article, whether manufactured or not, or, in the case of milk, if it is the product of a diseased animal; (6) if it is colored, coated, polished or powdered, whereby damage or inferiority is concealed,

or if by any means it is made to appear better or of greater value than it really is; (7) if it contains any added substance or ingredient which is poisonous or injurious to the health; (8) if, when sold under or by the name recognized in the eighth decennial revision of the United States pharmacopoeia, or the third edition of the National Formulary, it differs from the standard of strength, quality or purity laid down therein; (9) if, when sold under or by a name not recognized in the eighth decennial revision of the United States pharmacopoeia, or in the third edition of the National Formulary, but is found in some other pharmacopoeia, or other standard work on materia medica, it differs materially from the standard of strength, quality or purity laid down in such work; (10) if the strength, quality or purity falls below the professed standard under which it is sold; (11) if it contains any methyl or wood alcohol.

"Section 12716. In all prosecutions under this chapter, if milk is shown upon analysis to contain more than eighty-eight per cent. of watery fluid, or to contain less than twelve per cent. of solids or three per cent. of fats, it shall be deemed to be adulterated.

"Section 12717. Whoever sells, exchanges, or delivers, or has in his custody or possession with intent to sell or exchange, or expose or offers for sale or exchange, adulterated milk, or milk to which water or any foreign substance has been added, or milk from cows fed on wet distillery waste or starch waste, or from cows kept in a dairy or place which has been declared to be in unclean or unsanitary condition by certificate of any duly constituted board of health or duly qualified health officer within the county in which said dairy is located, or from diseased or sick cows, shall be fined not less than fifty dollars nor more than two hundred dollars; and, for a second offense, shall be fined not less than one hundred nor more than three hundred dollars, or imprisoned in the jail or workhouse not less than thirty days nor more than sixty days.

"Section 12718. For a subsequent offense, a person violating the next preceding section shall be fined fifty dollars and imprisoned in the jail or workhouse not less than sixty days nor more than ninety days.

"Section 12719. Whoever sells, exchanges, delivers or has in his custody or possession with intent

to sell or exchange, or exposes or offers for sale as pure milk, any milk from which the cream or part thereof has been removed, shall be fined not less than fifty dollars nor more than two hundred dollars. For a second offense he shall be fined not less than one hundred dollars nor more than three hundred dollars or imprisoned in the jail or workhouse not less than thirty days nor more than sixty days, and, for a subsequent offense, shall be fined fifty dollars and imprisoned in the jail or workhouse not less than sixty days nor more than ninety days.

“Section 12720. Whoever sells, exchanges, delivers or has in his custody or possession with intent to sell, exchange or deliver, milk from which the cream or part thereof has been removed, unless in a conspicuous place above the center and upon the outside of each vessel, can, or package, from which or in which such milk is sold, the words ‘skimmed milk’ are distinctly marked in uncondensed Gothic letters not less than one inch in length, shall be fined not less than fifty dollars nor more than two hundred dollars.

“Section 12721. For a second offense, a person violating the next preceding section shall be fined not less than one hundred dollars nor more than three hundred dollars or imprisoned in the jail or workhouse not less than thirty days nor more than sixty days, and, for a subsequent offense, shall be fined fifty dollars and so imprisoned not less than sixty days nor more than ninety days.

“Section 12725. Whoever manufactures, sells, exchanges, exposes or offers for sale or exchange, condensed milk unless it has been made from pure, clean, fresh, healthy, unadulterated and wholesome milk, from which the cream has not been removed and in which the proportion of milk solids shall be the equivalent of twelve per cent. of milk solids in crude milk, twenty-five per cent. of such solids being fat, and unless the package, can or vessel containing it is distinctly labeled, stamped or marked with its true name, brand, and by whom and under what name made, shall be fined not less than fifty dollars nor more than two hundred dollars, and, for each subsequent offense, shall be fined not less than one hundred dollars nor more than five hundred dollars and imprisoned not less than ten days nor more than ninety days.

“Section 12726. Whoever, with intent to de-

fraud, sells, delivers, or causes to be delivered, to a cheese or butter factory, milk which is adulterated or diluted within the meaning of the law, or from which any cream has been taken, or from which the part known as 'stripping' has been withheld, or keeps or renders a false account of the quantity or weight of milk furnished at or to a factory or sold to a manufacturer, shall be fined not less than fifty dollars nor more than two hundred dollars, and, for each subsequent offense, shall be fined not less than one hundred dollars nor more than five hundred dollars and imprisoned not less than ten days nor more than ninety days.

"Section 12727. Whoever sells, exchanges, or offers for sale or exchange, unclean, impure, unhealthy or unwholesome milk shall be fined not less than fifty dollars nor more than two hundred dollars, and for each subsequent offense shall be fined not less than one hundred dollars nor more than five hundred dollars and imprisoned not less than ten days nor more than ninety days.

"Section 12728. Whoever sells, exchanges, exposes, offers for sale or exchange, has in his possession or disposes of milk which is falsely branded, labeled, marked or represented as to grade, quantity or place where produced or procured shall be fined not less than fifty dollars nor more than two hundred dollars, and for each subsequent offense shall be fined not less than one hundred dollars nor more than five hundred dollars and imprisoned not less than ten days nor more than ninety days.

"Section 12729. Whoever keeps a cow for the production of milk in a cramped or unhealthy condition or feeds it on unhealthy food or on food which produces impure, unhealthy or unwholesome milk, shall be fined not less than fifty dollars nor more than two hundred dollars, and for each subsequent offense shall be fined not less than one hundred dollars nor more than five hundred dollars and imprisoned not less than ten days nor more than ninety days.

"Section 12722. Whoever uses a standard measure of milk or cream other than that which is defined in this section, where milk or cream is purchased by or furnished to creameries or cheese factories and where the value of such milk or cream is determined by the per cent. of butter fat contained therein by the Babcock test, shall be fined not less

than twenty-five dollars nor more than one hundred dollars. In the use of the Babcock test the standard milk measures or pipettes shall have a capacity of 17.6 cubic centimeters and the standard test tubes or bottles for milk shall have a capacity of two cubic centimeters for each ten per cent. marked on the necks thereof. The standard unit of cream for testing shall be eighteen grams.

"Section 12723. Whoever offers for sale or sells a milk pipette or measure, test tube or bottle which is not correctly marked or graduated as provided in the next preceding section, shall be fined not less than twenty-five dollars nor more than one hundred dollars.

"Section 12724. Whoever, at a cheese factory, creamery, condensed milk factory, or other place where milk is tested for quality or value, manipulates, underreads or overreads the Babcock test or any other contrivance used for determining the quality or value of milk or cream, or makes a false determination by the Babcock test or otherwise, shall be fined not less than twenty-five dollars nor more than one hundred dollars.

"Section 12730. Whoever fills or refills with milk, cream or other milk product a glass jar or bottle, with intent to sell such milk, cream or other milk product, unless such glass jar or bottle is first thoroughly cleansed or sterilized, shall be fined not more than one hundred dollars.

"Section 13169. Whoever fills or refills with milk, cream or other milk product, a glass jar or bottle having the name of a person, firm or corporation blown therein, with intent to sell such milk, cream or other product, shall be fined not more than one hundred dollars. This section shall not apply to a person, firm or corporation whose name is blown in such glass jar or bottle or an authorized agent or employe thereof."

10. The defendant, Norman E. Shaw, is the duly appointed, qualified and acting Secretary of Agriculture of Ohio and the defendant, Thomas C. Gault, is Chief of Bureau of Dairy and Foods of the Board of Agriculture of Ohio, and the other defendants, whose names are unknown to plaintiffs, are officers, agents or employes of said Bureau and Board.

Said defendants and each of them are charged with the enforcement of the Dairy, Food and Drink laws of

the State of Ohio including the sections of the General Code of Ohio hereinabove set forth.

11. On or about the 4th day of June, 1915, the Hebe Company submitted to the Agricultural Commission of Ohio, then charged by law with the duty of enforcing the laws of said state dealing with the subject of food and drinks hereinabove set out, the question as to the legality of the sale of said food product within the State of Ohio, and S. E. Strode, the then duly appointed, qualified and acting member of the Agricultural Commission of Ohio, to whom said Commission had allotted the investigation, inquiry, hearing, decision and order on questions in the division of dairy and food, duly approved the same, and said Agricultural Commission then and there caused to be sent by its duly authorized agent, a letter confirming said approval, a copy of said letter is in the words and figures following, to wit:

“June 5, 1915.

Mr. Hubert B. Fuller,
1110 Williamson Bldg.,
Cleveland, Ohio.

Dear Mr. Fuller: Yours of June 4th, stating your understanding of the verbal agreement made between Mr. Stevens of the Hebe Co. and this department, received.

I wish to say that your statement is entirely in accord with my understanding. The Hebe Company agrees to change its labels to conform to the rulings and regulations of the national and Ohio pure food departments. Copy of label is to be submitted and approved by this department. The company further agrees not to ship any goods into the state until these labels have been approved.

The department agrees to permit the sale of all Hebe products bearing the old label which was shipped into the state prior to May 1, 1915, and distributed by the Monypeny-Hammond Co., Columbus, Ohio; The Dall-Milliken Grocery Co., Washington, C. H., and The Weakly-Worman Co., Dayton, Ohio.

Very respectfully,

S. E. Strode,
Commissioner in Charge.”

Said letter was sent in response to a letter of inquiry submitted to said official on behalf of The Hebe Company, a copy of which letter is in the words and figures following, to wit:

"Cleveland, Ohio, June 4, 1915.

Hon. S. E. Strode,
State Dairy and Food Commission,
Columbus, Ohio.

My Dear Mr. Strode: Mr. Stevens, of The Hebe Company, and I were very much pleased with the result of our conference with you and Mr. Bartlow yesterday.

In line with my suggestion I am writing this letter to you in order that there may be no possible room for misunderstanding as to just what agreement was reached.

First of all, for The Hebe Company we agree that we will not ship into Ohio any more of our products known as 'Hebe' except that which bears the label approved yesterday by you and Mr. Bartlow. As soon as we can secure them from the lithographers, we will send you two copies of this label; one to be retained for your files and the other to be stamped and returned to us.

On the other hand, your office, as we understand it, agrees to permit the sale of all Hebe bearing the old label now in the State of Ohio, which was shipped to May 1st last. We do not know what the exact amount is, but it is not large, because we have in this state only three distributing houses. These houses are The Monypeny-Diamond Company of Columbus; The Dall-Milliken Grocery Company of Washington Court House, and The Weakly-Worman Company, of Dayton.

Will you kindly acknowledge receipt of this letter and confirm the correctness of this statement of the situation?

Very truly yours,

(Signed) Hubert B. Fuller."

Thereafter, on the 29th day of June, 1915, said Agricultural Commission of Ohio caused to be sent to The Hebe Company, a letter approving the labels used by the Hebe Company, a copy of which letter is in the words and figures following, to wit:

"June 29, 1915.

The Hebe Company, Chicago, Illinois.

Gentlemen: Replying to your communication of recent date, we wish to advise that we have received the labels and the same are approved, however, we request that you send a duplicate of the labels in order that we may include on same the approval of the department. One to be filed in this de-

partment, and the other to be returned to you.

Trusting to hear from you soon, and with best wishes, I am,

Yours very truly,

Bert Bartlow,
Chief of Division."

12. Replying implicitly upon said action by said officials of the State of Ohio, duly authorized by law to act in respect thereto, affirming and acknowledging the legality of the sale of said food product "Hebe" in the State of Ohio, and pursuant to said official action and decision, plaintiffs have made every effort to enlarge their business in the State of Ohio and have incurred large expense and by every other means have sought to build up, and have built up, a large and profitable business in the said food product "Hebe" in the State of Ohio, and it would be against equity and good conscience to now deprive plaintiffs of said business so built up in reliance upon the ruling and attitude taken by said officials as aforesaid.

13. Plaintiffs say that the Attorney General of the State of Ohio rendered an opinion to Thomas L. Calvert, the predecessor in office of the defendant, Thomas C. Gault, to the effect that said food product "Hebe" cannot be lawfully sold or distributed in the State of Ohio under any label whatever and that its sale is absolutely prohibited.

14. The defendants, Norman E. Shaw, as Secretary of Agriculture of Ohio, and Thomas C. Gault, as Chief of Bureau of Dairy and Foods of the Board of Agriculture of Ohio, have served notice upon plaintiffs and their customers in the State of Ohio that the said product "Hebe" cannot be sold or distributed in the State of Ohio from and after the 9th day of July, 1918; that if after that date said product be found upon the market, said defendants will cause prosecutions to be brought against all wholesalers, jobbers, distributors and retailers selling, offering or exposing for sale the said product known as "Hebe" in the State of Ohio.

15. Plaintiffs are advised that the said Attorney General based his said opinion principally upon the provisions of said Section 12725 of the General Code of Ohio, but plaintiffs are advised and aver that the construction placed upon the said Section 12725 of the General Code of Ohio by the Attorney General, as aforesaid, is not the correct construction; said section, properly construed, does not prohibit the sale of a product composed in part of evaporated skimmed milk, if said prod-

uct is plainly and fairly labeled in a conspicuous manner so as to apprise the purchaser of the true composition of such product; the label upon the said product "Hebe" hereinabove referred to fairly and conspicuously discloses to the purchaser that said product "Hebe" is in fact a compound, composed of evaporated skimmed milk and vegetable fat; said product so labeled is not within the condemnation of any valid act of the Legislature of the State of Ohio and may be lawfully sold and offered for sale in said State of Ohio.

16. Said food product "Hebe" is an article of food within the meaning of the National Food Law passed by the Congress of the United States and approved June 30, 1906, officially known as "The Food and Drugs Act, June 30, 1906." (34th Statutes at Large, page 768); it does not contain any added poisonous or deleterious ingredients; it is labeled so as to plainly indicate that it is a compound and the word "compound" is plainly stated on the package in which it is offered for sale; and it complies fully with the second paragraph of the first proviso contained in Section 8 of the said National Food and Drug Act of June 30, 1906, and is not and should not be deemed to be adulterated or misbranded within the meaning of said National Food and Drug Acts of June 30, 1906. Plaintiffs are advised that the said Attorney General on the 21st day of July, 1916, wrote a letter to the officials of the United States Bureau of Chemistry of the U. S. Department of Agriculture, charged with the enforcement of the said National Food Law, asking said officials for their opinion with regard to said food product "Hebe," the details of which letter are unknown to plaintiffs, but plaintiffs are advised that the following is a true and correct copy of an opinion rendered by the officials of said bureau to said Attorney General with regard to said food product "Hebe":

"F-221.

August 2, 1916.

Hon. Edward C. Turner, Attorney General, Columbus, Ohio.

Sir: Replying to your letter of July 21, 1916, there is enclosed a copy of Food Inspection Decision 158, containing a definition adopted by the department for condensed milk, evaporated milk, or concentrated milk. Articles which do not conform to the definition are regarded as not being entitled to be designated as condensed milk, evaporated milk, or concentrated milk.

The Bureau is informed that Hebe is a mixture of evaporated skimmed milk and cocoanut fat. It

is considered to be a compound within the meaning of Section 8 of the Food and Drugs Act, in the case of food, second subdivision of paragraph fourth, which provides that an article of food which does not contain any added poisonous or deleterious ingredients shall not be deemed to be adulterated or misbranded.

In the case of articles labeled, branded or tagged so as to plainly indicate that they are compounds, imitations, or blends, and the word 'compound,' 'imitation,' or 'blend,' as the case may be, is plainly stated on the package in which is offered for sale:

* * *

Respectfully,

(Signed) W. P. Jones,

Assistant Chief."

17. There is nothing contained in any statute of the said State of Ohio which would require any labeling of the said product "Hebe" other or different than the labeling for such product required by the said National Food and Drugs Act of June 30, 1906; the said labeling of said product required under the provisions of said Section 8 of said National Food and Drugs Act of June 30, 1906, is in compliance with any labeling required by the provisions of the existing laws of the State of Ohio; to require any other labeling on said food product "Hebe" than that which is provided for in Section 8 of the said National Food and Drugs Act of June 30, 1906, would be an interference with the labeling provided for and required by said National Food and Drugs Act of June 30, 1906, and would be destructive of said labeling so required by said National Food Law and would place a burden upon the interstate commerce business of plaintiffs without serving any good purpose or bringing about any different labeling required by any statute of the State of Ohio.

18. The said product "Hebe" is not sold by plaintiffs to customers in Ohio or to any customers in any of the states as or for condensed milk or evaporated milk, but is sold under its distinctive name of "Hebe" and under the label hereinbefore set forth; and plaintiffs are informed and believe and therefore aver that the said "Hebe" is not sold by any of their jobbers or wholesale dealers in the State of Ohio or elsewhere as or for condensed milk or evaporated milk, but is sold by said jobbers and wholesale dealers under its own distinctive name of "Hebe" and under the label hereinbefore set forth.

19. If said Section 12725 or any of the other sections of the Ohio General Code shall be construed by this Honorable Court as absolutely prohibiting the sale of a compound of evaporated skimmed milk and vegetable fat, notwithstanding that such compound is pure, wholesome and nutritious as an article of human food and is plainly labeled to show its true nature, then said laws of Ohio, and each and all of them as so construed, are unconstitutional and void for the following reasons:

(a) Because in violation of the 14th Amendment of the Constitution of the United States;

(b) Because they deprive plaintiffs of liberty and property without due process of law and deny to plaintiffs the equal protection of the law. The protection of the provisions of said 14th Amendment of the Constitution of the United States is hereby especially invoked by plaintiffs;

(c) Because such laws would arbitrarily and unjustly discriminate against said "Hebe" by prohibiting the distribution and sale thereof under a conspicuous label which shows the true character of such product, said prohibition being based upon the ground that said "Hebe" is composed in part of condensed or evaporated skimmed milk; while at the same time said Ohio laws permit the sale without restriction of uncondensed or unevaporated skimmed milk if the same be labeled "skimmed milk," as specified by said law. And plaintiffs aver that the process of evaporating skimmed milk consists in simply driving off a certain amount of moisture and neither adds any new element nor removes any element except a certain amount of the moisture as aforesaid;

(d) Because said laws, if so construed, would absolutely prohibit the sale in the State of Ohio of said food product "Hebe," which is a nutritious food product sold under a label correctly describing said product, and would amount to absolute prohibition and not a mere regulation of the sale thereof;

(e) Because plaintiffs in shipping the said product into the State of Ohio, as hereinbefore particularly described, are under the protection of the interstate commerce laws of the United States; that there is now and was at all times herein mentioned a valid national law governing the shipment of food and drug products in interstate shipment; that under said national law the said product "Hebe," labeled as aforesaid, may be lawfully shipped into said State of Ohio, and is in nowise in violation of said national law; that a statute of the State of

Ohio which denies to plaintiffs and their customers and dealers in Ohio the right to sell the product "Hebe" in the original cans in which plaintiffs ship the said product into the State of Ohio from outside the State of Ohio, is an unlawful interference with the interstate commerce laws of the United States since the individual tin cans hereinbefore described are the original packages so far as the National Food and Drug Laws is concerned and said cans are labeled as required by the National Food and Drugs Law aforesaid; any statute of Ohio which denies the right to sell said product in said cans is unconstitutional and void as being in conflict with the said national law and national regulations duly and regularly made thereunder;

(f) Because the said sections of the General Code of Ohio as so construed by said Attorney General are void because the same are unjust, arbitrary and unduly discriminating and confiscatory and violate the Constitution of the United States, the Fourteenth Amendment thereto and the Commerce Clause thereof.

20. The defendants claiming to act under the laws of the State of Ohio hereinabove set forth forbidding fraud, adulterations or impurities in food, drinks or drugs, and the unlawful labeling thereof and especially under the provisions of said Section 12725 of the General Code of Ohio, but without any authority of law, and notwithstanding the fact that the sale of said food product known as "Hebe" and labeled as aforesaid is not forbidden by said statutes or any of them, and contains all labeling required by said statutes and that the said statutes are not applicable in the premises, and that there is no law in the State of Ohio warranting their said acts, and notwithstanding the pure, wholesome and nutritious character of said "Hebe" and that the same is without any unwholesome or deleterious ingredients, and notwithstanding that each can is labeled as specifically required to be labeled by the National Food and Drugs Act of June 30, 1906, and that said food product is a legitimate article of commerce under the provisions of said national law and notwithstanding the interstate commerce rights of plaintiffs to ship said product into the State of Ohio and the rights of its customers and dealers in the said State of Ohio to sell, offer for sale and expose for sale the said article of food in the individual cans labeled as required by said national law, and notwithstanding the approval of said food product by their predecessors in office duly authorized in the premises will, unless restrained by the order of this Honorable

Court, arrest, cause to be arrested and prosecute or assist in arresting and prosecuting each and all of the customers of plaintiffs who may sell, exchange, expose or offer for sale or exchange said food product manufactured by plaintiffs known as "Hebe," and will institute a large number of prosecutions upon the wrongful and erroneous charge that the sale of said "Hebe" is forbidden by law, and will further interfere with and destroy the business of said plaintiffs within said state. By reason of the official capacity of the defendants and the fact that they claim to act under said statutes of the State of Ohio intended to prevent the adulteration of food products, the wrongful acts above described, which said defendants will commit unless restrained by the order of this Honorable Court, will render said food product unmarketable in Ohio and will impair and destroy the market value of large quantities of "Hebe" now on hand among plaintiff's customers and dealers in Ohio, and will, to a large extent, injure plaintiffs and their said interstate commerce business and the good will thereof and will injure, if not wholly destroy, the value of the same, and plaintiffs will be put to great expense in defending their said interstate commerce rights in Ohio and will suffer irreparable injury thereby.

21. By reason of the fact that many of the customers of plaintiffs and the said retail dealers selling plaintiff's product aforesaid, are within the jurisdiction of the courts of the said State of Ohio and will be prosecuted by said defendants if they sell said food product, many of said customers of plaintiffs and the said wholesalers, jobbers, distributors and retail dealers have been and are intimidated and afraid to continue to sell and handle the said food product "Hebe" lest they subject themselves to prosecutions; and that by reason thereof plaintiffs' said business with customers in the said State of Ohio has been and will be diminished to the great damage and loss of plaintiffs; that should said prosecutions be instituted the said business of plaintiffs in said food product will be wholly destroyed in said State of Ohio, to the irreparable damage of plaintiffs in the sum of many thousands of dollars.

22. Should said prosecutions be commenced, the same would result in a multiplicity of suits, and said food product "Hebe" would be involved in all of said suits, but plaintiffs would not be parties to any of said suits or have a legal right to defend same or defend said food product and establish its legality, and in said prosecutions no defense can be made properly representing the

interest of plaintiffs, and even though such prosecutions shall uniformly result in the acquittal of the persons charged, yet by reason of the multiplicity thereof, said prosecutions will deter many, if not all, dealers from further dealings in said "Hebe"; the number of dealers in "Hebe" in the State of Ohio against whom such wrongful prosecutions might be brought exceeds three hundred in number.

23. The said threatened prosecutions, if not restrained by injunction issuing out of your Honorable Court will result in continuing wrong and damage to plaintiffs which cannot be compensated for in an action at law for damages. Plaintiffs have no legal or adequate remedy at law by which they can prevent the commission of said acts complained of, and are without any remedy whatsoever other than the writ of injunction hereinafter prayed for.

24. Forasmuch, therefore, as plaintiffs are without remedy in the premises except in a court of equity, plaintiffs pray:

1st. That this Honorable Court determine the rights of these plaintiffs under the Constitution and laws of the United States regulating interstate commerce in articles of food, as well as the rights of these plaintiffs under the laws of the State of Ohio; and

2nd. That the defendants and each of them, their agents and attorneys, be restrained by an injunction issued out of this Honorable Court, from bringing or causing to be brought any prosecutions against plaintiffs or any customers of plaintiffs or any dealers in said food product "Hebe," charging them or either of them with the possession of, offering for sale, or selling of said food product "Hebe," and from menacing or threatening any dealer in "Hebe" or any customer of plaintiffs with prosecution for having in his possession, offering for sale or selling such "Hebe," or instituting or commencing against any person, partnership or corporation having in his, their or its possession, or offering for sale or selling "Hebe," any action, proceeding, suit or prosecution based upon the claim that said "Hebe" is forbidden by law to be sold or offered for sale within the State of Ohio;

3rd. That temporarily and pending this suit, said defendants and each of them, their agents and attorneys, may be temporarily enjoined as above prayed for.

May it please your Honors to grant plaintiffs writs of subpoena directed to said defendant, Norman E. Shaw, Secretary of Agriculture of Ohio, and the defendant,

Thomas C. Gault, Chief of Bureau of Dairy and Foods of the Board of Agriculture of Ohio, thereby commanding them, and each of them under a certain penalty therein to be named, to be and appear before this Honorable Court and then and there full, true, direct and perfect answer make to this bill of complaint (but not under oath, answer under oath being hereby waived), then and there to abide by and perform the orders and decrees of this court in the premises.

The Hebe Company,
By Lewis R. Hardenbergh,
Vice President.
Carnation Milk Products Company,
By Lewis R. Hardenbergh,
Vice President.
Vorys, Sater, Seymour & Pease,
Brode B. Davis,
Lannen & Hickey,
Solicitors for Plaintiffs.

Augustus T. Seymour,
Brode B. Davis,
Thomas E. Lannen,
Of Counsel.

State of Illinois, County of Cook, ss.:

Lewis R. Hardenbergh, being first duly sworn, deposes and says that he is the vice president of The Hebe Company and vice president of the Carnation Milk Products Company, corporations, respectively, the plaintiffs in the above entitled bill of complaint; that he is authorized to sign this bill of complaint on behalf of said plaintiffs and each of them; that he has read the foregoing bill of complaint and knows the contents thereof, and that the same is true of his own knowledge, except as to such matters therein stated to be upon information and belief he believes them to be true.

Lewis R. Hardenbergh.

Subscribed and sworn to before me this fifteenth day of July, A. D. 1918.

[Notarial Seal.]

W. M. Ellamund,
Notary Public.

ANSWER TO THE BILL OF COMPLAINT—Filed July 18, 1918.

Now come defendants, Norman E. Shaw, Secretary of Agriculture of Ohio, and Thomas C. Gault, Chief of Bureau of Dairy and Foods of the Board of Agriculture of Ohio, and by way of answer to the bill of complaint say that they are without knowledge that The Hebe

Company is a corporation duly organized and existing under the laws of the state of Washington and a citizen and resident of the state of Washington; that it has its principal place of business in the city of Seattle in the latter state; that the Carnation Milk Products Company is a corporation duly organized and existing under the laws of the state of Maine, and a citizen and resident of the state of Maine, that it has its principal office in said state or that it has numerous principal places of business throughout the United States outside of the State of Ohio, but these defendants admit that Norman E. Shaw, Secretary of Agriculture of Ohio, and Thomas C. Gault, Chief of Bureau of Dairy and Foods of the Board of Agriculture of Ohio, and all other officers and agents claiming to act under the authority of the said the Board of Agriculture of Ohio, are citizens and residents of the State of Ohio.

First Defense.

These defendants say that upon the face of said bill of complaint there is insufficiency of fact to constitute a valid cause of action in equity or to entitle the plaintiffs or either of them to the relief, or any part thereof, for which they pray in said bill of complaint.

Second Defense.

1. These defendants say that they are without knowledge that the plaintiffs are engaged in manufacturing, shipping, transporting, selling and offering for sale, throughout the United States, and in the several states, other than in Ohio, and in interstate commerce, a certain food product described in the bill of complaint and that the business of said The Hebe Company is that of distributing said product.

2. Defendants admit that plaintiffs solicit and take orders for said product from customers in the State of Ohio and fill said orders by shipping said product from their places of business in the United States, outside of the State of Ohio, to said customers in the State of Ohio.

3. Defendants admit that the business of plaintiffs in said product with customers in the State of Ohio is with wholesale dealers, jobbers and distributors residing in and doing business in the State of Ohio; that plaintiffs sell said product to said wholesale dealers, jobbers and distributors and ship said product to them as aforesaid; that said wholesale dealers, jobbers and distributors sell said product in said State of Ohio to retail dealers and others in said State of Ohio; that said retail dealers sell, offer for sale, expose for sale, and have in their possession with intent to sell the said prod-

uct to customers in the State of Ohio; but defendants have no knowledge that the business of plaintiffs is exclusively with wholesale dealers, jobbers and distributors.

4. Defendants admit that said product is sold by said wholesale dealers, jobbers, distributors and retail dealers in many of the principal cities, towns and villages of the said State of Ohio.

5. Defendants admit that the amount involved in this controversy exceeds, exclusive of interest and costs, the sum of three thousand dollars; and that the value of the business which plaintiffs seek to protect by this suit exceeds the sum of three thousand dollars, exclusive of interest and costs.

6. Defendants have no knowledge whether the business of plaintiffs with said customers as aforesaid in the State of Ohio, before the committing of the grievances hereinafter mentioned, resulted in fair and continuous profit, and has been built up by the expenditure of large sums of money in promoting said business, but defendants admit that the sale of an adulteration such as "Hebe" for a valuable food product such as butter fat should result in a large and continuous profit.

7. Defendants say that they have no knowledge whether said product is pure and wholesome and is not injurious to health, but defendants admit that if said product is not used to the exclusion of other food to sustain life, it is not injurious to health; defendants admit that said product is composed of evaporated skimmed milk and some kind of fat; defendants have no knowledge of the kind of fat in every case or whether or not said fat has been highly refined and is of the finest quality or of the percentage in every case of the fat in said product; defendants admit that six per cent. of butter fat is a substantial amount of fat in genuine condensed milk, but deny that six per cent. of a substitute fat or oil is a substantial amount of fat in said product; defendants deny that said substitute for butter fat, whatever the same may be, adds materially to the food value and usefulness of said product or to any condensed milk, but aver that the same increases the facility with which the public may be deceived into believing that it is buying genuine condensed milk; these defendants admit that all of said product, except the said substance which is substituted for butter fat, is evaporated skimmed milk. Defendants say that they have no knowledge that the evaporated skimmed milk and the vegetable fat in said product are combined into a homogeneous mass as a

result of a special process known to plaintiffs whereby said vegetable fat is caused to combine with said evaporated skimmed milk in such a way that said fat remains properly combined with said evaporated skimmed milk until said food product is ready for consumption; defendants have no knowledge that said product contains no other ingredients than evaporated skimmed milk and cocoanut oil; defendants admit that said product when shipped into the State of Ohio and when handled, dealt in and sold by said wholesale dealers, jobbers, distributors and dealers in the State of Ohio, is in some instances labeled as shown in paragraph 7 of the bill of complaint, but defendants aver that in other instances it is and has been sold under labels different from the label above mentioned and which contain misleading statements; that in some instances said labels contain different statements and statements which were calculated and intended by the plaintiffs to mislead the public.

8. Defendants admit that when the said product is shipped into the State of Ohio it is contained in tin cans of two sizes, one holding one pound and the other holding six ounces; but defendants deny that each can bears the label shown in paragraph 7 of the bill of complaint and no other label of any description; defendant admits that said cans, labeled as aforesaid, when shipped into the State of Ohio, are packed in fibre shipping boxes or shipping cases, completely sealed; defendants have no knowledge whether said shipping boxes or shipping cases completely conceal said cans and the labeling thereon, or whether each case of one pound cans contains forty-eight cans and each case of six ounce cans contains ninety-six cans; defendants have no knowledge that said shipping cases are used only as outer coverings for convenience in shipping and not as packages for the purpose of complete labeling and when shipped in less than carload lots are marked only with the name of the consignee and such other data as necessary to insure proper identification of the product and delivery of the shipment, or whether when shipped in carload lots said cases are not marked with the name of the consignee; defendants have no knowledge that when said shipping cases are received by a retail dealer in the State of Ohio the individual cans, labeled with the label mentioned in paragraph 7 of the bill of complaint, are removed from said shipping cases by such retail dealer and exposed for sale on the shelves of said retail dealer as individual units; defendants have no knowledge that in the great

majority of instances the cans are purchased by consumers, one can at a time.

9. Defendants admit that there are now in force and effect in the State of Ohio certain state laws dealing with the subject of foods and drinks; that all of said laws were in full force and effect on and prior to June 1, 1915, and that among said laws are found the quoted sections of the General Code of Ohio, described as Sections 5778, 12716, 12717, 12718, 12719, 12720, 12721, 12725, 12726, 12727, 12728, 12729, 12722, 12723, 12724, 12730 and 13169; that the said statutes as quoted in subdivision 9 of the bill of complaint are the statutes of Ohio, and defendants make this general admission for the purpose of avoiding unnecessary repetition in making their answer as brief as may be practicable. Defendants say, however, that the foregoing statutes are not the only statutes of the State of Ohio dealing with the subject of foods and drinks.

10. Defendants admit that Norman E. Shaw is Secretary of Agriculture of Ohio and Thomas C. Gault is Chief of Bureau of Dairy and Foods of the Board of Agriculture of Ohio, and that they have in their employ officers, agents and employes, and that these defendants and each of their subordinates are charged with the enforcement of the Dairy, Food and Drink Laws of the state of Ohio, including the sections of the General Code of Ohio hereinabove set forth.

11. Defendants say that not being in their present positions on the 4th day of June, 1915, they have no knowledge whether The Hebe Company submitted to the Agricultural Commission of Ohio the question as to the legality of the sale of said product within the state of Ohio and that S. E. Strode, the then duly appointed, qualified and acting member of the Agricultural Commission of Ohio, duly approved the same; defendants admit the letter from the said S. E. Strode to Hubert D. Fuller of date of June 5, 1915, the letter to said S. E. Strode, signed by Hubert B. Fuller, of date of June 4, 1915, and the letter to The Hebe Company, signed by Bert Bartlow, dated June 29, 1915, were written and sent.

12. Defendants deny that plaintiffs relied implicitly upon said action by said officials of the state of Ohio, and defendants deny that they were duly authorized by law to act in respect thereto; defendants deny that said officers had any right to affirm or acknowledge the legality of the sale of said "Hebe" in the state of Ohio, and defendants deny that plaintiffs relied upon the same, but aver that the correspondence itself shows that prior

to the date of the same plaintiffs had been shipping and selling said product in the state of Ohio; defendants have no knowledge that plaintiffs have made every effort to enlarge their business in the state of Ohio and have incurred large expense and by every other means have sought to build up and have built up a large and profitable business in the said product "Hebe" in the state of Ohio; and defendants say that such is the facility and ease of deceiving the public by such a product, that a large and profitable business in the same could be built up in any community without large expense; defendants especially deny that it would be against equity and good conscience to now deprive plaintiffs of said business or that the same was built up in reliance upon the ruling and attitude taken by said officials as aforesaid.

13. Defendants admit that they heretofore submitted to the Attorney General of Ohio for his opinion upon the law, the question of the right of plaintiffs to sell the said product "Hebe" in Ohio, and admit that the said Attorney General heretofore rendered an opinion to the effect that said product "Hebe" can not be lawfully sold or distributed in the state of Ohio under any label whatever and that its sale is absolutely prohibited.

14. Defendants admit that they and other employes and agents of the said Division of Dairy and Food have served notice upon plaintiffs and their customers in the state of Ohio that the product "Hebe" cannot be sold or distributed in the state of Ohio from and after the 9th day of July, 1918; that if after that date said product be found upon the market, these defendants and their subordinates would cause prosecutions to be brought against all wholesalers, jobbers, distributors and retailers selling, offering or exposing for sale the said product known as "Hebe" in the state of Ohio.

15. Defendants admit that the said Attorney General based his said opinion in part upon the provisions of said section 12725 of the General Code of Ohio, and other sections of the Code; but defendants are without knowledge whether plaintiffs have been advised, and they specifically deny that the construction placed upon section 12725 of the General Code of Ohio by the Attorney General as aforesaid is not the correct construction; defendants deny that said section, properly construed, does not prohibit the sale of a product composed in part of evaporated skimmed milk, if said product is plainly and fairly labeled in a conspicuous manner so as to apprise the purchaser of the true composition of such product;

defendants deny that the label used upon said product "Hebe", hereinabove referred to, fairly and conspicuously discloses to the purchaser that said product "Hebe" is in fact a compound composed of evaporated skimmed milk and vegetable fat; defendants deny that said product so labeled is not within the condemnation of any valid act of the legislature of the state of Ohio and deny that it may be lawfully sold and offered for sale in the state of Ohio.

16. Touching the allegations contained in section 16 of said bill of complaint, the same contains so many conclusions of law and fact that it is difficult for these defendants to answer the same, and in regard to the same these defendants are without knowledge.

17. Defendants deny that there is nothing contained in any statute of the said state of Ohio which would require any labeling of the said product "Hebe" other or different than the label for such product required by the National Food and Drugs Act of June 30, 1906; defendants deny that said labeling of said product required under the provisions of said section 8 of said National Food and Drugs Act of June 30, 1906, is in compliance with any labeling required by the provisions of the existing laws of the state of Ohio; defendants deny that to require any other labeling on said product "Hebe" than that which is provided for in section 8 of said National Food and Drugs Act of June 30, 1906, would be an interference with the labeling provided for and required by said National Food and Drugs Act of June 30, 1906, and that the same would be destructive of said labeling so required by said National Food Law and that it would place a burden upon the interstate commerce business of plaintiffs without serving any good purpose or bringing about any different labeling required by any statute of the state of Ohio.

18. Defendants deny that the product "Hebe" is not sold by plaintiffs to customers in Ohio or to any customers in any of the states as and for condensed milk or evaporated milk; defendants deny that it is sold under its distinctive name of "Hebe"; that it is sold in every case under the label set forth in the bill of complaint; defendants deny that "Hebe" is not sold by any of their jobbers or wholesale dealers in the state of Ohio or elsewhere as or for condensed milk or evaporated milk; defendants deny that it is sold by said jobbers and wholesale dealers under its distinctive name of "Hebe" and in every case under the label set forth in said bill of complaint; on the contrary defendants aver that in the great

majority of cases the retailers sell said "Hebe" as condensed milk without qualifications or explanation, which fact is and was well known to plaintiffs because even upon information they have not averred in the bill of complaint that "Hebe" is not sold by retailers in Ohio as and for condensed milk or evaporated milk.

Further pleading these defendants say that the nutritive quality of cream or the butter fat in milk is well and favorably known to the general public and is especially known and used as the one food which alone will sustain life and produce growth, and it is, therefore, largely used for the purpose of nourishing infants who receive no other food but milk; that the labels and advertisements used in connection with such products as "Hebe" in every instance contain the word "milk" at some place or in some form; that the retailers hold such products out to the public as milk; that being inferior to and cheaper than condensed milk from which the cream has not been removed, it is on account of its cheapness easy to sell to and is readily bought by the public; that if the oil substitute in such product has slight nutritive value, it is very inferior in life nourishing quality to the butter fat for which it is substituted and so much inferior that infants, fed upon the same exclusively, would starve; that the sale and scheme of such products as "Hebe" are based upon the well known value of butter fat, upon the fact that the latter is associated in the public mind with milk and upon the fact that retailers can and do easily sell such products from which the cream has been removed to the public for the genuine condensed milk; that on account of the great facility with which the public was and can be deceived in this matter and the great danger to the health of the public and especially infant life, there was and is no way or means by which the legislature of Ohio could protect the people of Ohio, and especially infant children, from imposition and injury except by prohibiting the sale of condensed skimmed milk.

19. Defendants deny that if section 12725 or any of the other sections of the Ohio General Code shall be construed by this Honorable Court as absolutely prohibiting the sale of a compound of evaporated skimmed milk and vegetable fat, then that said laws of Ohio, and each and all of them as so construed, are unconstitutional and void for the reasons given in section 19 of the bill of complaint, or for any other reasons.

20. Defendants admit that unless restrained by the order of this Honorable Court, they will arrest, cause to

be arrested and prosecute or assist in arresting and prosecuting each and all of the customers of plaintiffs who may sell, exchange, expose or offer for sale or exchange said product manufactured by plaintiffs known as "Hebe", and will institute as large a number of prosecutions as may be necessary to prohibit the sale of "Hebe" and protect the people of Ohio from imposition.

Touching the other allegations in paragraph 20 of the bill of complaint, defendants say that they are made up largely of arguments and conclusions of fact and law and that it is therefore difficult and unnecessary to answer the same, and touching the same these defendants say that they have no knowledge.

21. Defendants admit that by reason of their orders, certain persons in the state of Ohio are not selling and handling the product known as "Hebe" lest they subject themselves to prosecutions; and touching the other arguments, conclusions and statements in paragraph 21 defendants have no knowledge.

22. Defendants specifically deny that if prosecutions be commenced that the same would result in a multiplicity of suits, but on the contrary aver that if the courts of Ohio pass upon this matter, the people of Ohio, being law abiding, will conform to the decisions of their courts, and defendants therefore say that nothing more is necessary than one test case; defendants deny that said product "Hebe" would necessarily be involved in more than one case; defendants admit that plaintiffs would not be parties to any of said suits, but deny that they would not have a legal right to defend same or defend said product and establish its legality, but aver that it is possible for plaintiffs and customary to defend its customers in the sale of said product; defendants deny that in said prosecutions no defense can be made properly representing the interests of plaintiffs, and defendants deny that even though such prosecutions should uniformly result in the acquittal of the persons charged, yet by reason of the multiplicity thereof, said prosecutions would deter many, if not all, dealers from further dealing in said "Hebe", but on the contrary defendants say that whenever the Ohio court of last resort shall decide that the sale of "Hebe" is legal in Ohio they will desist from and cause no further prosecutions under the law. Defendants deny that the number of dealers in "Hebe" in the state of Ohio against whom such wrongful prosecutions might be brought exceeds three hundred, but on the contrary says that a single test case, in which the plaintiffs could be represented by counsel if

they so desired, would be sufficient to determine the question.

23. Defendants deny that said threatened prosecutions, if not restrained by injunction issuing out of your honorable court, would result in continuing wrong and damage to plaintiffs which cannot be compensated for in an action at law for damages; defendants deny that plaintiffs have no legal or adequate remedy at law by which they can prevent the commission of said acts complained of and deny that they are without any remedy whatsoever other than the writ of injunction herein-after prayed for, but on the contrary these defendants say that the courts of Ohio, in one criminal prosecution, can and will determine the rights of the plaintiffs and give them all the protection to which any citizen of the state of Ohio or of the United States is entitled.

24. Defendants say that the product known as "Hebe" is condensed milk, from which the cream has been removed, is adulterated and is prohibited to be sold in the state of Ohio, all as provided in section 12725 of the General Code of Ohio, and is not a compound according to the laws of Ohio.

25. Wherefore, these defendants ask that the prayer of the plaintiffs and each of them may be denied; that the bill of complaint may be dismissed; that the petition may be dismissed as to all of the defendants in the case, that these defendants may go hence without day, recover their costs in this behalf expended, and for all other and further relief to which they may be entitled, either in law or in equity.

Norman E. Shaw,
Secretary of Agriculture of Ohio.

Thomas C. Gault,
Chief of Bureau of Dairy and Foods of the
Board of Agriculture of Ohio.

Joseph McGhee,
Attorney General.

Charles J. Pretzman,
Of Counsel.

L. D. Johnson,
Of Counsel.

Attorneys for Defendants.

**WAIVER OF PLAINTIFFS AND STIPULATION OF
ALL PARTIES**—Filed July 19, 1918.

Whereas, the plaintiffs commenced an action in the District Court of the United States for the Southern District of Ohio, Eastern Division, against Thomas L. Cal-

vert the then Chief of Division of Dairy and Food of the Board of Agriculture of Ohio, to obtain the same relief now prayed for in the bill of complaint herein, and

Whereas, said cause was heard before three judges, one of whom was John W. Warrington, a Circuit Judge, and the others of whom were District Judges, John E. Sater and Howard C. Hollister, upon the bill of complaint, the answer and the evidence, on the 15th day of May, 1917, and

Whereas, the defendant Thomas L. Calvert resigned as Chief of Division of Dairy and Food of the Board of Agriculture of Ohio, on the 28th day of July, 1917, and said action thereby abated, and

Whereas, without the knowledge of the court of the fact of the resignation of said defendant, Thomas L. Calvert, and of the abatement of said action said cause was determined by said three judges and a decree was entered on the 19th day of April, 1918, dismissing the bill of complaint of plaintiffs, and

Whereas, at a subsequent term of said court, to wit, on the 19th day of July, 1918, on motion of the plaintiff in said cause said court entered an order vacating and setting aside said decree entered April 19, 1918, and dismissing the bill of complaint for the reason that said action against said Thomas L. Calvert abated upon and by his resignation, and

Whereas, the parties to the above entitled action do not desire to introduce any evidence in addition to that taken in the said case of The Hebe Company and the Carnation Milk Products Company against Thomas L. Calvert, Chief of Division of Dairy and Food of the Board of Agriculture of Ohio, et al., in equity, No. 72, but desire to submit this case upon said evidence, and plaintiffs have waived and do hereby waive application for a temporary or interlocutory injunction prayed for in the bill of complaint.

Now, therefore, it is hereby stipulated by and between the parties hereto, by their respective solicitors, that the evidence, including all exhibits, taken in the case of The Hebe Company and Carnation Milk Products Company against Thomas L. Calvert, Chief of Division of Dairy and Food of the Board of Agriculture of Ohio, et al., in equity, No. 72, lately pending in the District Court of the United States for the Southern District of Ohio, Eastern Division, together with the stipulations of fact filed in said case, shall be taken as and for the evidence in this case, subject to the objections of the several parties thereto, as the same appear in the transcript thereof,

in like manner and with the same force and effect as if said evidence, exhibits and stipulations of fact had been actually introduced upon the trial of this case, and the witnesses duly sworn and their testimony given herein; all such evidence, exhibits and stipulations of fact being set forth in the transcript thereof, and filed herewith in this case.

Vorys, Sater, Seymour and Pease,
Brode B. Davis,
Lannen & Hickey,

Solicitors for Plaintiffs.

L. D. Johnson,
Solicitor for Defendants.

ENTRY—Filed July 19, 1918

This cause coming on this 19th day of July, 1918, to be heard upon the bill of complaint and the answer thereto of the defendants, and upon the stipulation of the parties hereto, this day filed herein, and the plaintiffs having waived the prayer of the bill of complaint for a temporary or interlocutory injunction, the court does hereby order and decree that the evidence, including all exhibits, taken in the case of The Hebe Company and Carnation Milk Products Company against Thomas L. Calvert, Chief of Division of Dairy and Food of the Board of Agriculture of Ohio, et al., in equity No. 72, lately pending in the District Court of the United States for the Southern District of Ohio, Eastern Division, together with the stipulations filed in said cause, all of such evidence, exhibits and stipulations being set forth in a transcript thereof filed in this cause, are hereby admitted and received in evidence (subject to the same objections interposed by the several parties to said cause, the same appearing upon said transcript) as all the evidence offered and introduced by either of the parties hereto, in like manner and with the same force and effect as if said evidence, exhibits and stipulations were actually introduced herein and the witnesses duly sworn and the testimony given on the hearing of this cause.

Said cause coming on further to be heard upon the bill of complaint, the answer thereto and the evidence, and having been argued by counsel for the respective parties, and the court being fully advised in the premises,

It is ordered, adjudged and decreed by the court that the bill of complaint of plaintiffs be, and the same is, hereby dismissed, with costs to the defendants, to be

taxed; to which order, judgment and decree of the court dismissing the bill of complaint the plaintiffs then and there excepted and still except, which exception is hereby allowed and granted by the court.

Hollister, Judge.

PETITION FOR ALLOWANCE OF APPEAL TO SUPREME COURT—Filed July 19, 1918

The above-named plaintiffs, conceiving themselves aggrieved by the decree made and entered on the 19th day of July, 1918, in the above-entitled action, hereby appeal from the said order and decree to the Supreme Court of the United States, for the reasons specified in the assignment of errors which are filed herewith, and pray that this appeal may be allowed, and that a transcript of the record, proceedings and papers, upon which such order and decree was made, duly authenticated, may be sent to the Supreme Court of the United States.

Dated this 19th day of July, 1918.

Vorys, Sater, Seymour and Pease,
Brode B. Davis,
Lannen & Hickey,
Solicitors for Hebe Company and
Carnation Milk Products Company.

The foregoing appeal is allowed.

Dated July 19th, 1918.

Hollister,
United States Judge.

ASSIGNMENT OF ERRORS—Filed July 19, 1918

1. The court erred in that in and by said decree it dismissed the plaintiffs' bill of complaint.

2. The court erred in that in and by said decree it holds that Section 12725 of the General Code of the State of Ohio prohibits the sale of the compound "Hebe" in the State of Ohio.

3. The court erred in that in and by said decree it holds that the laws of the State of Ohio prohibit the sale of the compound "Hebe" in the State of Ohio.

4. The court erred in that although in and by said decree it holds that Section 12725 of the General Code of the State of Ohio prohibits the sale of the compound "Hebe" in the State of Ohio, it failed to hold in and by said decree that said Section 12725, so construed, is in violation of the Fourteenth Amendment to the Constitution of the United States in that said Section 12725 deprives the plaintiffs of liberty and property without

due process of law and denies to the plaintiffs equal protection of the law.

5. The court erred in that although in and by said decree it holds that the laws of the state of Ohio prohibit the sale of the compound "Hebe" in the State of Ohio, it failed to hold in and by said decree that said laws of the state of Ohio, so construed, are in violation of the Fourteenth Amendment to the Constitution of the United States, in that said laws deprive the plaintiffs of liberty and property without due process of law and deny to the plaintiffs the equal protection of the law.

6. The court erred in that although in and by said decree it holds that Section 12725 of the General Code of the State of Ohio prohibits the sale of the compound "Hebe" in the State of Ohio, it failed to hold in and by said decree that said Section 12725, so construed, arbitrarily and unjustly discriminates against said compound "Hebe" by prohibiting the distribution and sale thereof under a conspicuous label which shows the true character of said product, such prohibition being based upon the ground that said product "Hebe" is composed in part of condensed or evaporated skimmed milk, while at the same time the laws of the State of Ohio permit the sale without restriction of uncondensed or unevaporated skimmed milk if the same be labeled "skimmed milk" as the same is specified by said laws, and that by reason of such arbitrary and unjust discrimination said Section 12725 is in violation of the Fourteenth Amendment of the Constitution of the United States in that it deprives the plaintiffs of liberty and property without due process of law and denies to the plaintiffs the equal protection of the law.

7. The court erred in that although in and by said decree it holds that the laws of the State of Ohio prohibit the sale of the compound "Hebe" in the State of Ohio, it failed to hold in and by said decree that said laws of Ohio so construed arbitrarily and unjustly discriminate against said compound "Hebe" by prohibiting the distribution and sale thereof under a conspicuous label, which shows the true character of said product, such prohibition being based upon the ground that said product "Hebe" is composed in part of condensed or evaporated skimmed milk, while at the same time the laws of the State of Ohio permit the sale without restriction of unevaporated or uncondensed skimmed milk if the same be labeled "skimmed milk," as specified by said laws, and that by reason of such arbitrary and unjust discrimination said laws of the State of Ohio are in

violation of the Fourteenth Amendment of the Constitution of the United States in that they deprive the plaintiffs of liberty and property without due process of law and deny to the plaintiffs the equal protection of the law.

8. The court erred in that although in and by said decree it holds that Section 12725 of the General Code of Ohio prohibits the sale of the compound "Hebe" in the State of Ohio notwithstanding the fact that said "Hebe" is a pure and wholesome food product and is sold under a label describing such product, it failed to hold in and by said decree that said Section 12725, so construed, is in violation of the Fourteenth Amendment of the Constitution of the United States in that said Section 12725 deprives the plaintiffs of liberty and property without due process of law and denies to the plaintiffs the equal protection of the law.

9. The court erred in that although in and by said decree it holds that the laws of the State of Ohio prohibit the sale of the compound "Hebe" in the State of Ohio, notwithstanding the fact that said "Hebe" is a pure and wholesome food product and is sold under a label clearly describing said product, it failed to hold in and by said decree that such laws of Ohio, so construed, are in violation of the Fourteenth Amendment of the Constitution of the United States in that said laws deprive the plaintiffs of liberty and property without due process of law and deny to the plaintiffs the equal protection of the law.

10. The court erred in that and by said decree, it failed to hold that under the laws of the United States governing the shipment of food and drug products in interstate shipments, known as The Food and Drugs Act approved June 30th, 1906 (34 U. S. Statutes at Large, page 768), the product "Hebe" labeled as set forth in the bill of complaint and as proved upon the trial of this cause, may be lawfully shipped by plaintiffs into the State of Ohio from without the State of Ohio, and that the plaintiffs and their customers and dealers in the State of Ohio may lawfully sell the same in that state in the original and individual cans in which the plaintiffs ship the said product into the State of Ohio.

11. The court erred in that it failed to hold in and by said decree that any prohibition in said Section 12725 of the General Code of Ohio of the right of the plaintiffs and their customers and dealers in the State of Ohio to sell the product "Hebe" in the original and individual cans in which the plaintiffs ship the product into the

State of Ohio from without the State of Ohio, in the manner described in plaintiff's bill of complaint and as proved upon the trial of this cause, is an unlawful interference with the Interstate Commerce Laws of the United States.

12. The court erred in that in and by said decree it failed to hold that any prohibition in the laws of the State of Ohio of the right of the plaintiffs and their customers and dealers in the State of Ohio to sell the product "Hebe" in the original cans in which the plaintiffs shipped the product into the State of Ohio from without the State of Ohio in the manner described in plaintiffs' bill of complaint and proved upon the trial of this cause, is an unlawful interference with the Interstate Commerce Laws of the United States.

13. The court erred in that in and by said decree it failed to hold that the original and individual cans in which the plaintiffs ship the said product "Hebe" into the State of Ohio from without the state of Ohio in the manner described in the plaintiffs' bill of complaint, and as proved upon the trial of this cause, said cans being labeled as required by the National Food and Drugs Act, approved June 30th, 1906, (34 U. S. Statutes at Large, page 768) are the original packages within the meaning, intent and effect of said National Food and Drugs Law; and that any prohibition in the laws of the State of Ohio of the right of plaintiffs and their customers and dealers in the State of Ohio to sell the product "Hebe" in such original and individual cans is in violation of said National Food and Drugs Law, and such laws of Ohio are unconstitutional and void in that they are in conflict with said National Food and Drugs Law and the national regulations duly and regularly made thereunder.

14. The court erred in that in and by said decree it failed to hold that Section 12725 of the General Code of Ohio prohibiting the sale by the plaintiffs and their customers and dealers of the product "Hebe" in the State of Ohio is void because the same is unjust, arbitrary, unduly discriminating and confiscatory.

Wherefore, plaintiffs pray that said decree may be reversed, and that said court may be ordered to enter a decree in accordance with the prayer of the Bill of

Complaint or in such form as to this court may seem just and proper.

A. T. Seymour,
Brode B. Davis,
Thomas E. Lannen,
Solicitors for Hebe Company and
Carnation Milk Products Company.

ORDER ALLOWING APPEAL—Filed July 19, 1918

The petition of The Hebe Company and Carnation Milk Products Company is hereby granted and the appeal allowed upon petitioners filing within thirty days hereafter a bond conditioned as required by law, with good and sufficient security to be approved by the court, said bond to be in the sum of \$500.00.

Hollister,
District Judge.

COPY OF CITATION—Filed July 19, 1918

United States of America, ss.:

The President of the United States:

To Norman E. Shaw, Secretary of Agriculture of Ohio, and Thomas C. Gault, Chief of Bureau of Dairy and Foods of the Board of Agriculture of Ohio:

Greeting:

You are hereby cited and admonished to be and appear at a session of the Supreme Court of the United States to be holden at the City of Washington, District of Columbia, within thirty days from the date hereof, pursuant to an appeal, filed in the Clerk's office of the District Court of the United States for the Southern District of Ohio, Eastern Division, wherein The Hebe Company and Carnation Milk Products Company are appellants and you are appellees, to show cause, if any there be, why the decree rendered against said appellants as in the said appeal mentioned, should not be corrected and why speedy justice should not be done to the parties in that behalf.

Witness the Honorable Edward Douglas White, Chief Justice of the United States, this nineteenth day of July in the year of our Lord One Thousand Nine Hundred and Eighteen, and of the independence of the United States of America One Hundred and Forty Two.

Hollister,

Judge of the District Court of the United States,
for the Southern District of Ohio.

On behalf of the appellees we hereby acknowledge

service of the attached citation and receipt of copy thereof this 19th day of July, A. D. 1918.

Norman E. Shaw, Secretary of Agriculture of Ohio, and Thomas C. Gault, Chief of Bureau of Dairy and Foods of the Board of Agriculture of Ohio.

By Joseph McGhee,
Attorney General of the State of Ohio.

L. D. Johnson,
Special Counsel.
Solicitors for Appellees.

COPY OF BOND—Filed July 19, 1918

Know all men by these presents, That we, The Hebe Company and Carnation Milk Products Company, corporations, as principals, and The Aetna Casualty and Surety Company, as surety, are held and firmly bound unto Norman E. Shaw, Secretary of Agriculture of Ohio, Thomas C. Gault, Chief of Bureau of Dairy and Foods of the Board of Agriculture of Ohio, and all other officers and agents claiming to act under the authority of said Board of Agriculture of Ohio, or of the Secretary of Agriculture of Ohio, in the full and just sum of Five Hundred (\$500.00) Dollars, to be paid to the said Norman E. Shaw, Secretary of Agriculture of Ohio, and others, certain attorneys, executors, administrators or assigns: to which payment, well and truly to be made, we bind ourselves, our heirs, executors and administrators, jointly and severally, by these presents. Sealed with our seals and dated this 19th day of July, in the year of our Lord one thousand nine hundred and eighteen.

Whereas, lately at a regular term of the District Court of the United States for the Southern District of Ohio, Eastern Division, in a suit depending in said Court, between The Hebe Company and Carnation Milk Products Company, corporations, plaintiffs, and Norman E. Shaw, Secretary of Agriculture of Ohio, and others, Defendants, a decree was rendered against the said The Hebe Company and Carnation Milk Products Company, and the said The Hebe Company and Carnation Milk Products Company having obtained an appeal and filed a copy thereof in the Clerk's Office of the said Court to reverse the decree in the aforesaid suit, and a citation directed to the said Norman E. Shaw, Secretary of Agriculture of Ohio, and others, citing and admonishing them to be and appear at a session of the Supreme Court of the United States, to be holden at the City of Washington, D. C., on the 17th day of August next.

Now, the condition of the above obligation is such, That if the said The Hebe Company and Carnation Milk Products Company shall prosecute said appeal to effect, and answer all cost if they fail to make their plea good, then the above obligation to be void; else to remain in full force and virtue.

Sealed and delivered in presence of Harry F. Rabe.

The Hebe Company (Seal).

Carnation Milk Products Company (Seal).

By Brode B. Davis,

Their Agent and Attorney.

The Aetna Casualty and Surety Company.

John P. Ryan,

Attorney-in-Fact.

Approved by Hollister, U. S. District Judge, July 19th, 1918.

OPINION—Filed July 19, 1918

This case was submitted to me, Judge Sater being absent on his vacation, on the Bill, the Answer, the stipulation of counsel filed this day, July 19, 1918, and the evidence and testimony as contained in the transcript of evidence and testimony taken on the hearing of the case of The Hebe Company and Carnation Milk Products Company, corporations, Plaintiffs, v. Thomas L. Calvert, Chief of Division of Dairy and Food of The Board of Agriculture of Ohio, et al., Defendants, No. 72 in Equity, when that case was tried before Warrington, Circuit Judge, and Sater and Hollister, District Judges, which transcript so embodying the testimony and evidence has been stipulated by counsel for the parties in this case to be used for and as the evidence and testimony in this case. The opinion written in that case by Judge Sater was concurred in by Judge Warrington and Judge Hollister.

As it would serve no useful purpose for the questions involved to be now elaborately dealt with in another opinion, I shall therefore now, and do, adopt the opinion of Judge Sater filed in case No. 72, hereinbefore referred to, as the court's opinion upon the present issues involved in this case.

Judge Sater's opinion referred to is now, for convenience, set out at length:

Before Warrington, Circuit Judge, and Sater and Hollister, District Judges.
Sater, District Judge:

Jurisdiction of this case is vested in the court through the presence of federal questions and the diverse citi-

zenship of the parties litigant. Rail & River Coal Co. v. Yaple, 214 Fed. Rep. 273, 277, Ohio River & W. Ry. Co. v. Dittey, 203 Fed. Rep. 537, 539, and authorities there cited. Both of the plaintiffs are foreign corporations. The defendants are Calvert, Chief of Division of Dairy and Food of the Board of Agriculture of Ohio, and other officers and agents of such Board. The plaintiffs were authorized by Calvert's predecessor in office to sell in Ohio their food products known as "Hebe," if appropriately labeled. One-half of the label adopted and thereafter used is as follows—the remaining half being the same as the portion here shown:

After Calvert entered upon the discharge of his duties, at his instance an opinion was rendered by the State's Attorney General, in which it was held that in view of the provisions of sections 12716, 12717, and 12725, considered in connection with sections 5774 and 5778, Ohio General Code, and the reasoning of *Reiter v. State*, 109 Md., 235, "Hebe," whether it be a compound or otherwise, cannot be sold in Ohio because the major part of it is adulterated condensed milk to which a minor constituent (cocoanut oil) has been added and because it is regarded by a large percentage of the public as genuine condensed milk, whereby the public is misled and deceived into its purchase and use for the condensed article made of whole or standard milk. The plaintiffs and their customers were thereupon notified by the defendants that, unless further sales of their product in Ohio be discontinued, prosecutions would follow and the penalties provided by statute would be inflicted on all who should fail to desist. The bill charges that such prosecutions against the plaintiffs and those selling their product, whether they be their wholesalers or their more than three hundred retailers, would result in a great multiplicity of suits and would greatly and irreparably injure their business in the state, even if the prosecutions should terminate favorably to the accused. Injunctive relief is sought against the enforcement by the State's officers of the pertinent sections of the State statute, on the ground of their unconstitutionality. The presence of three Judges is therefore necessary to a hearing of the case. Sec. 266, Judicial Code. If the threatened acts of the defendants are in excess of the authority vested in them by law, an action to enjoin them is within the jurisdiction of a Federal court, both diverse citizenship and the necessary jurisdictional amount being present. *Ex Parte Young*, 209 U. S. 123. The issues having been made up, the case was heard on

its merits. It is now for decision with reference to the Ohio statutes.

The terms "evaporated" and "condensed" as applied to milk are, as generally understood, synonymous, and they will for the purposes of this opinion be so regarded. Hebe is recognized by the Bureau of Chemistry of the National Department of Agriculture as a compound. Ninety-four per cent. of it is evaporated skimmed milk; the remaining six per cent. is cocoanut oil, highly refined and of good quality, which in its properties, as disclosed by the record, more nearly resembles butter fat than any other known substance. The two ingredients are by an undisclosed process so brought together as to remain properly combined until the food product is ready for consumption. There is no claim that the product, or either of its ingredients, is impure or unwholesome. The article is produced in and shipped from Wisconsin by the plaintiffs to jobbers in various states, including Ohio, on orders accepted in the state of Washington, and reaches consumers through retailers who purchase of such jobbers. It is transported in cans which are packed in enclosing, sealed, fiber shipping-cases, completely concealing the cans and their labels, each case containing either forty-eight cans of one pound each or ninety-six cans of six ounces each. When shipped in carload lots the shipping-cases bear only the name of the consignee and other data appropriate for identification and delivery. When such cases are received by the retailer, he removes the cans and exposes them for sale to his customers. The plaintiffs' position is that their food product, being plainly and fairly labeled in a conspicuous manner, is not within the condemnation of the Ohio statute and may be lawfully sold and offered for sale in such state. It is further claimed that if the Ohio statute, correctly construed, prohibits the sale of Hebe, a compound composed of two well known articles of food, each of which is pure, wholesome and nutritious, it is in that event violative of the fourteenth amendment of the Federal constitution in that (a) it deprives the plaintiffs of liberty and property without due process of law and also denies them the equal protection of the law; (b) it does not regulate the sale of "Hebe," but arbitrarily, unjustly, unduly and in a confiscatory manner, discriminates against it and prohibits its distribution and sale, although such article is so conspicuously and correctly labeled as to show its true character, and, although the statute permits the sale of uncondensed skimmed milk, if it be labeled

skimmed milk; (c) by its denial of the right to sell "Hebe" in individual tin cans, which cans are labeled as required by the National Food and Drugs Act and are "original packages" in so far as that Act is concerned, it conflicts with such Act and the regulations made in accordance with it and unlawfully interferes with the interstate commerce laws of the United States.

Chapter I of "Part Two, Title II, Police Regulations" of the Ohio code deals with "Adulterations." It provides *inter alia* as follows: No person within the state shall manufacture, offer for sale, sell or deliver, or have in his possession with intent to sell or deliver, any article of food which is adulterated or misbranded within the meaning of such chapter. Sec. 5774. A compound article is a food, if used by man as such. Sec. 5775. A food is adulterated, if a valuable or necessary constituent or ingredient has been wholly or in part abstracted from it. Sec. 5778. It is misbranded, if it is labeled so as to deceive or mislead the purchaser, or if the label on the package containing the food bears a statement regarding such food which is false or misleading in any particular (Sec. 5785), provided, however,

"That this section shall not apply to mixtures or compounds recognized as ordinary articles or ingredients of articles of food or drink, if each package sold or offered for sale is distinctly labeled in words of the English language as mixtures or compounds, with the name and percentage, in terms of one hundred per cent. of each ingredient therein. The word 'compound' or 'mixture' shall be printed in letters and figures not smaller in height or width than one-half of the largest letter upon any label on the package, and the formula shall be printed in letters and figures not smaller in height or width than one-fourth the largest upon any label on the package, and such compound or mixture must not contain an ingredient that is poisonous or injurious to health."

The provisions of Chapter 6, found in "Part Fourth, Title I, Felonies and Misdemeanors," and dealing with "Offenses Against Public Health," are also pertinent to the subject matter under consideration. It declares milk to be standard or unadulterated, if it contains not more than eighty-eight per cent. of watery fluid, and not less than twelve per cent. of solids or three per cent. of fats. Sec. 12716. Whoever sells, exchanges or delivers, or has in his custody or possession with intent to sell or exchange, or exposes or offers for sale or exchange, adulterated milk, is subject to a fine for his first offense, to a fine or imprisonment for his second offense (Sec. 12717),

and to both fine and imprisonment for any subsequent offense (Sec. 12718). In view of Sec. 5778, milk from which the cream or butter fat has been removed, i. e. skimmed milk, is not pure, but is adulterated. Sec. 12720, however, permits the sale of such milk, if conspicuously labeled "Skimmed Milk," notwithstanding the provisions of Sections 5774, 5778, 12717 and 12718, and therefore serves as an exempting clause to those sections. By "skimmed milk" is meant milk from which its natural cream has been taken in whole or in part. *Commonwealth v. Hufnal*, 185 Pa., 376, 380. Sec. 12725 is as follows:

"Whoever manufactures, sells, exchanges, exposes or offers for sale or exchange, condensed milk unless it has been made from pure, clean, fresh, healthy, unadulterated and wholesome milk, from which the cream has not been removed and in which the proportion of milk solids shall be the equivalent of twelve per cent. of milk solids in crude milk, twenty-five per cent. of such solids being fat, and unless the package, can or vessel containing it is distinctly labeled, stamped or marked with its true name, brand, and by whom and under what name made, shall be fined not less than fifty dollars nor more than two hundred dollars, and, for each subsequent offense, shall be fined not less than one hundred dollars nor more than five hundred dollars and imprisoned not less than ten days nor more than ninety days."

Compound foods were first legally recognized by Sec. 2 (now, in so far as pertinent, Sec. 5775) of the act of March 20, 1884, 81 Ohio L., 67. Sec. 12725, in substance, but with some variation in phraseology, originally appeared as Sec. 13 of the supplementary act of May 17, 1886, 83 Ohio L., 178, entitled, "An Act to Prevent Adulteration of and Deception in the Sale of Dairy Products," i. e., cheese, butter and milk. A perusal of the act shows that its provisions conform to the purpose declared in the enacting clause. When the legislature came to the enactment of Sec. 13 for the purpose of regulating the manufacture and sale of condensed milk, it knew that within legal limitations compound foods were permissible, and recognized, as appears by necessary implication from the section itself, that an article might, as the law then stood, be made and marketed as condensed milk (if such had not already been done), which was not made from whole or natural milk. It declared, to the exclusion of skimmed or any other form of adulterated milk and of any and all mixtures and compounds in which such milk is an ingredient, that there should be

but one kind of condensed milk and that it should be made of pure, clean, fresh, healthy, unadulterated, wholesome standard milk. Its purpose is to secure to the population, adult and infant, wholesome condensed milk of a certain standard of strength and purity. It is the conception of the law that condensed milk made from milk below the prescribed standard is not wholesome.

One of the purposes of the several acts relating to foods and drugs and to dairy products is to prevent deception in their sale to consumers and to preserve the public health. *State v. Capital City Dairy Co.*, 62 Ohio St., 350; *State v. Hutchinson*, 56 Ohio St., 82; *Arbuckle v. Blackburn*, 113 Fed. Rep., 616, C. C. A., 6. The construction thus given to such statutes by the state's highest judicial tribunal must be accepted. *Price v. Illinois*, 238 U. S., 446, 451. There is a conflict in the evidence as to whether "Hebe" is as nutritious and as effective as a growth producer, and therefore as a health promoter and maintainer, as the legally recognized condensed milk. So long as that question is debatable, the legislature is entitled to its own judgment, and that judgment may not be superseded by the views of the court. *Price v. Illinois*, *supra*, at p. 452; *Rast v. Dan Deman & Lewis*, 240 U. S., 342, 357; *Atlantic Coast Line v. Georgia*, 234 U. S., 280, 288; *Stass v. State*, 23 Ohio Circuit Decisions, affirmed without report, 81 Ohio St., 497; *Klopfer v. Board of Health*, 9 Ohio Nisi Prius (N. S.), 33. With the wisdom of the exercise of that judgment the court has no concern; and, unless it clearly appears that the enactments have no substantial relation to a proper purpose, it cannot be said that the limit of legislative power has been transcended. *Purity Extract Co. v. Lynch*, 226 U. S., 192, 201, 202. Nor is it material that Hebe was not known when the Ohio statutes under consideration were enacted and that the legislature may have unwittingly prohibited the sale of an article of which it had no knowledge. *Reiter v. State*, 109 Md., at p. 240. As to the practice of deception on consumers in the sale of the plaintiffs' product, there is substantial and uncontradicted evidence that it is represented to be and is sold as "Hebe milk" and as condensed milk. The monetary value of the cocoanut oil substituted for the butter fat removed from the milk by skimming is much less than that of such fat, the cost of the oil prior to the commencement of the present European war being about thirteen cents and at the time of the hearing about nineteen cents per pound. The difference between the price at which condensed milk and "Hebe" respec-

tively may be manufactured and sold is such that the temptation to impose upon the public has been too great to be resisted. It seems that when the form of label was under consideration by Calvert's predecessor in office and when the attorney general's opinion was rendered, there were but three wholesalers in the state that were distributing the plaintiffs' product. One of them in filling a contract of some magnitude with the United States Military Department twice supplied "Hebe" to fill an order for evaporated milk. The substitution was not detected until after the second delivery of goods was made. They were then returned to the seller. It is in evidence that the plaintiffs have instructed their representatives to sell their product for what it really is, but, the purpose of the statute being to protect the people from deception by selling them one thing when they desire another, it is not important whether the plaintiffs intend or do not intend to deceive. They are the producers of an article which, it sufficiently appears, is freely sold by some retail dealers, at least, as a brand of condensed milk, of which there are several on the market, and is susceptible of being thus sold and used, and has in good faith been bought by ordinary purchasers as such. The label, it is true, states that "Hebe" is a compound and names the elements of which it is composed, but it also informs the public that it may be used "for coffee and cereals, for baking and cooking." It may be applied to and is designed for the same uses as condensed milk. Its appearance is that of condensed milk, and, if there be a difference in the taste of the two, it is not such as the layman would be likely to detect. Blame cannot, therefore, be rightfully imputed to the unwary consumer who does not closely scrutinize the label upon the package in which "Hebe" is contained, and who concludes that that article, applied as it may be, to the same purposes as condensed milk, is and must be condensed milk itself, although parading under a fanciful name, and especially when it is sold to him by the retailer in response to an inquiry for such milk. Whether "Hebe" is as wholesome and nutritious as condensed milk is unimportant, so long as it is used as an instrument of fraud. *Powell v. Pennsylvania*, 127 U. S., 678. Producers of an article of food which may be and is used to deceive the public are not favored in courts of equity.

The lawmakers have asserted and the State Supreme Court has broadly declared the constitutional right to enact statutes here under consideration pertaining to foods, drugs, and dairy products. *State vs. Hutchinson*; *State*

vs. Capital City Dairy Co., affirmed in Capital City Co. v. State, 183 U. S. 238. The sections which specifically deal with condensed and skimmed milk were not involved, it is true, in the cases just cited, but the regulatory rules which pervade those sections are so similar in character to those which govern the manufacture and sale of butter and oleomargarine and other foods and drugs as to bring such sections well within the provisions of the Ohio constitution and render the last cited decisions applicable. They are furthermore regulatory and not prohibitive. *State v. Capital City Dairy Co.*, at pp. 363, 364, 365; *Capital City Dairy Co. v. State*, at p. 246; *State v. Rippeth*, 71 Ohio St., 85, 87; *Capital City Dairy Co. v. Ohio*, 183 U. S. at p. 246; *Butler v. Chambers*, 1 Am. St. Rep. 638, and extended note, 36 Minn., 69. They forbid the practicing of fraud upon the general public. They seek to suppress false pretenses, to promote fair dealing and the public health in the sale of an article of food. They do not prohibit the manufacture and sale of all condensed milk, but guarantee to consumers a pure dairy product and prevent the sale of an adulterated or deceptive article. The constitution of the United States does not secure to any one the privilege of manufacturing and selling an article offered in such manner as to induce purchasers to believe they are buying something which is in fact different from that which is offered for sale. That the State may rightfully enact a law such as that now under consideration and that such law does not contravene any provision of the Federal constitution appears from many well considered cases. In *Price v. Illinois*, at p. 451, in which a statute prohibiting the use of boric acid in food preservatives was upheld, it was said that—

“The state has undoubted power to protect the health of its people and to impose restrictions having reasonable relation to that end. The nature and extent of restrictions of this character are matters for the legislative judgment in defining the policy of the state and the safeguards required. In the avowed exercise of this power, the legislature of Illinois has enacted a prohibition—as the statute is construed—against the sale of food preservatives containing boric acid and unless this prohibition is palpably unreasonable and arbitrary, we are not at liberty to say that it passes beyond the limits of the state’s protective authority.”

In *Dent v. West Virginia*, 129 U. S., 114, 122, it was announced that the power of the state to provide for the general welfare of its people authorizes it to prescribe all such regulations as, in its judgment, will secure or tend

to secure them against the consequences of ignorance and incapacity, as well as deception and fraud. Mr. Justice Harlan, in *Plumley v. Massachusetts*, 155 U. S. 461, 472, after citing the *Dent* case to the above point, added:

“ “If there be any subject over which it would seem the states ought to have plenary control, and the power to legislate in respect to which, it ought not to be supposed, was intended to be surrendered to the general government, it is the protection of the people against fraud and deception in the sale of food products. Such legislation may, indeed, indirectly or incidentally affect trade in such products transported from one state to another state. But that circumstance does not show that the laws of the character alluded to are inconsistent with the power of Congress to regulate commerce among the states.”

There are many other cases to the point that the legislation of a state, such as is here under consideration, not directed against commerce or any of its regulations, but relating to the rights, duties and liabilities of citizens, and only indirectly and remotely affecting the operations of commerce, is valid and of obligatory force upon citizens within its territorial jurisdiction, whether engaged in commerce, foreign or interstate, or in any other pursuit among which are *Sherlock v. Alling*, 93 U. S. 99, 103; *Rahrer's Case*, 140 U. S. 546; *Standard Stock Food Co. v. Wright*, 225 U. S. 540, 547; and *The Minnesota Rate Cases*, 230 U. S. 352, 408.

Reliance is placed by the plaintiffs on *McDermott v. Wisconsin*, 228 U. S. 115, in which it was held that the word “package” or its equivalent expression, as used by Congress in sections 7 and 8 of the Pure Food and Drugs Act (June 30, 1906, 34 Stat. 768), in defining what shall constitute adulteration and what shall constitute misbranding within the meaning of that act, refers to the immediate container of the article which is intended for consumption, and that, when an article in interstate commerce is by the terms of that act properly labeled, a state cannot require such label, when property affixed, to be removed and other labels authorized by its own statute to be affixed to the package containing the article, so long as it remains unsold by the importer, whether it be in the original case or not. It is claimed that the teachings of that case are that the protection accorded to articles of interstate commerce by the Federal constitution extends to the sale in Ohio by wholesale and retail dealers in plaintiffs' goods in the original packages,

i. e., the labeled tin containers, notwithstanding the Ohio statute under consideration. The Wisconsin act was in direct conflict with the Federal act, which covers the field, as regards the labeling of articles of food which are transported in interstate commerce, and leaves nothing on which a state law touching labels can operate. The object of the Federal act is to prevent the misuse of the facilities of interstate commerce in conveying to and placing before the consumer misbranded and adulterated articles of medicine or food; and, in order that its protection may be afforded to those who are intended to receive its benefits, the brands or labels, the regulation of which is within the power of Congress, it was properly held, must be upon the package intended to reach the purchaser. But it was also expressly stated that it by no means follows that the state is not permitted to make regulations with a view to the protection of its people against fraud or imposition by impure food or drugs. The plaintiffs' contention must fail, for the reason that where the mode of putting up and labeling a package is adapted to meet the requirements of local trade or intrastate commerce and its sale is conducive to the deception of the consumer, the dealer will not be protected on the ground that he is selling an original package. The police power of a state extends to all regulations of its internal commerce designed to prevent imposition and fraud, as well as to those designed to promote public health, public morals, or public safety, although the regulations prescribed may incidentally affect interstate commerce, provided Congress has not acted in the particular matter. Congress has not declared that an article of food whose transportation in interstate commerce is permissible under the terms and provisions of the Pure Food and Drugs Act may be sold in a state to which it has been shipped, if such article is susceptible of use and is used as a means of deceiving consumers. The self-protecting power of the state may be rightfully exerted against its introduction, and such exercise of power cannot be considered a regulation of commerce prohibited by the constitution. *Savage v. Jones*, 225 U. S., 501; *Sligh v. Kirkwood*, 237 U. S., 52; *Mutual Film Co. v. Industrial Commission of Ohio*, 215 Fed. Rep., 138; *Hall v. Geiger-Jones Co.*, 242 U. S., 539; *Arbuckle v. Blackburn*.

Nor does the Ohio statute contravene the fourteenth amendment to the Federal constitution. It has drawn a distinction as it may do (*Rast v. Van Deman & Lewis*, 240 U. S., 342, 357), between condensed milk made in ac-

cordance with its terms and that which is otherwise produced, and between the manufacturers and sellers of such respective kinds of milk. The statute, like that under consideration in *Powell v. Pennsylvania*, 127 U. S., 678, 687, places under the same restrictions, and subjects to like penalties and burdens, all who manufacture or sell, or offer for sale, or keep in possession to sell, the articles embraced by its prohibitions—thus recognizing and preserving the principle of equality among those engaged in the same business. We cannot say that the Ohio statute is unreasonable and arbitrary and deprives the plaintiffs of property without due process of law. *Price v. Illinois*; *St. John v. New York*, 201 U. S., 633.

Whether either standard or skimmed milk may be used as a constituent element of a compound or mixed food, and whether "Hebe" is nothing more than adulterated condensed milk with a minor ingredient added, and other questions discussed by counsel, need not be decided, although they have received the thoughtful consideration of the court.

A decree may be entered dismissing the bill.

We concur in the foregoing opinion.

J. W. Warrington,
Circuit Judge.

H. C. Hollister,
District Judge.

Of course, the statement in that opinion, "the presence of three judges is therefore necessary to a hearing of the case, Sec. 266 of the Judicial Code," is not applicable to any of the present issues and is not adopted as a part of this opinion.

The label referred to in Judge Sater's opinion is the same as the label incorporated in and attached to the bill of complaint herein.

A decree may be entered dismissing the bill.

Hollister,
District Judge, Southern District of Ohio.
Cincinnati, July 19, 1918.

STIPULATION AND PRECIPE—Filed July 31, 1918
Honorable B. E. Dilley,

Clerk of the United States District Court,
Columbus, Ohio.

The Clerk will please prepare a transcript of the record of the above entitled cause for filing in the Supreme Court of the United States, including and incorporating therein the following:

Bill of complaint, answer of defendants, waiver of

plaintiffs and stipulation of all parties, order admitting evidence, exhibits and stipulations taken in the case of The Hebe Company and Carnation Milk Products Company against Thomas L. Calvert, Chief of Division of Dairy and Food of the Board of Agriculture of Ohio, et al., in equity, No. 72, lately pending in the District Court of the United States, for the Southern District of Ohio, Eastern Division, and dismissing the bill of complaint, petition for appeal, assignment of errors, order allowing appeal, copy of citation, copy of bond, statement of evidence certified by Judge Hollister, opinion of Judge Hollister, including opinion of Judge Sater therein adopted, stipulation and precipe, certificate of Clerk to transcript.

A. T. Seymour,
Brode B. Davis,
Thomas E. Lannen,

Solicitors for The Hebe Company and
Carnation Milk Products Company.

On behalf of defendants, we hereby acknowledge service of the within and foregoing precipe and stipulate and agree that the portions of the record therein set forth shall constitute the transcript of record on appeal in the Supreme Court of the United States.

Norman E. Shaw, Secretary of Agriculture
of Ohio, Thomas C. Gault, Chief of Bureau of Dairy and Foods of the Board of Agriculture of Ohio,

By L. D. Johnson, Special Counsel for the
State of Ohio, Their Solicitors.

STATEMENT OF EVIDENCE AND CERTIFICATE OF APPEAL—Filed Aug. 1, 1918

Be it remembered, and certified, that on the hearing of the above entitled cause on the 19th day of July, A. D. 1918, upon the bill of complaint and answer to said bill, the plaintiff introduced in evidence the following testimony, to-wit:

The plaintiffs waived application for a temporary or interlocutory injunction, and all parties stipulated as follows:

"Whereas, the plaintiffs commenced an action in the District Court of the United States for the Southern District of Ohio, Eastern Division, against Thomas L. Calvert the then Chief of Division of Dairy and Food of the Board of Agriculture of Ohio, to obtain the same relief now prayed for in the bill of complaint herein, and

Whereas, said cause was heard before three judges one of whom was John W. Warrington, a Circuit Judge, and the others of whom were District Judges, John E. Sater and Howard C. Hollister, upon the bill of complaint, the answer and the evidence, on the 15th day of May, 1917, and

Whereas, the defendant Thomas L. Calvert resigned as Chief of Division of Dairy and Food of the Board of Agriculture of Ohio, on the 28th day of July, 1917, and said action thereby abated, and

Whereas, without the knowledge of the court of the fact of the resignation of said defendant, Thomas L. Calvert, and of the abatement of said action of said cause was determined by said three judges and a decree was entered on the 19th day of April, 1918, dismissing the bill of complaint of plaintiffs, and

Whereas, at a subsequent term of said court, to wit, on the 19th day of July, 1918, on motion of the plaintiff in said cause said court entered an order vacating and setting aside said decree entered April 19, 1918, and dismissing the bill of complaint for the reason that said action against said Thomas L. Calvert abated upon and by his resignation, and

Whereas, the parties to the above entitled action do not desire to introduce any evidence in addition to that taken in the said case of The Hebe Company and the Carnation Milk Products Company against Thomas L. Calvert, Chief of Division of Dairy and Food of the Board of Agriculture of Ohio, et al., in equity, No. 72, but desire to submit this case upon said evidence, and plaintiffs have waived and do hereby waive application for a temporary or interlocutory injunction prayed for in the bill of complaint.

Now, therefore, it is hereby stipulated by and between the parties hereto, by their respective solicitors, that the evidence, including all exhibits, taken in the case of The Hebe Company and Carnation Milk Products Company against Thomas L. Calvert, Chief of Division of Dairy and Food of the Board of Agriculture of Ohio, et al., in equity, No. 72, lately pending in the District Court of the United States for the Southern District of Ohio, Eastern Division, together with the stipulations of fact filed in said case, shall be taken as and for the evidence in this case, subject to the objections of the several parties thereto, as the same appear in the transcript thereof, in like manner and with the same force and effect as if said evidence, exhibits and stipulations of fact had been actually introduced upon the trial of this case, and the wit-

nesses duly sworn and their testimony given herein; all such evidence, exhibits and stipulations of fact being set forth in the transcript thereof, and filed herewith in this case."

Thereupon the following facts were agreed upon and stipulated between plaintiffs and defendants through their solicitors respectively, as follows:

"Stipulation of Facts.

"It is hereby stipulated that the following are facts in the above entitled case; provided however that any party to this case may object to the competency or relevancy of the same or any part thereof:

"1. The Hebe Company is a corporation of the State of Washington and a citizen and resident of said state and its principal place of business is in the City of Seattle in said state; and Carnation Milk Products Company is a corporation of the State of Maine and a citizen and resident of said state and has its principal office in said state; and both The Hebe Company and Carnation Milk Products Company have numerous principal places of business throughout the United States outside of the State of Ohio.

"2. Defendant Norman E. Shaw is Secretary of Agriculture of Ohio and defendant Thomas C. Gault is Chief of Bureau of Dairy and Foods of The Board of Agriculture of Ohio and they are citizens and residents of the state of Ohio; and other unnamed defendants are officers and agents claiming to act under the authority of The Board of Agriculture of Ohio and are all citizens and residents of the State of Ohio.

"3. Plaintiffs are engaged in manufacturing and selling outside of the State of Ohio, and shipping to the State of Ohio, the food product described in the bill of complaint filed herein.

"4. Plaintiffs do business in said food product with wholesale dealers, jobbers and distributors, residing and doing business in the State of Ohio.

"5. Plaintiffs receive orders for said food product from said wholesale dealers, jobbers and distributors in the State of Ohio, and then fill said orders by shipping said product from plaintiffs' places of business outside of the State of Ohio to said wholesale dealers, jobbers and distributors in the State of Ohio; and said wholesale dealers, jobbers and distributors then sell said product to retail dealers (and in some instances directly to large consumers such as restaurants and hotels) in the State of Ohio; and said retail dealers sell the said food product direct to consumers in the state of Ohio, and offer it

for sale to consumers, and expose it for sale to consumers, and have it in their possession with intent to sell to consumers, in the said State of Ohio, (the place of acceptance by plaintiffs of said orders may be established by oral proof).

"6. Said food product is dealt in, sold, offered for sale, exposed for sale, and had in possession with intent to sell, by wholesale dealers, jobbers, distributors, and retail dealers in many of the principal cities, towns and villages of the said State of Ohio.

"7. The amount involved in this case exceeds, exclusive of interest and costs, the sum of three thousand dollars (\$3,000), and the value of the business which plaintiffs seek to protect by this suit exceeds the sum of three thousand dollars (\$3,000), exclusive of interest and costs.

"8. The defendants named and referred to in the bill of complaint are charged with the enforcement of the dairy, food and drink laws of the State of Ohio, including the sections of the General Code of Ohio particularly involved in this case. On the fourth day of June, 1915, the Agricultural Commission of Ohio was charged by law with the duty of enforcing the laws of the State of Ohio dealing with the subject of food and drinks, and including the laws involved in this case, and one S. E. Strode was the then duly appointed, qualified and acting member of the Agricultural Commission of Ohio, and said Agricultural Commission on June fifth, 1915, through its duly authorized agent, caused the following letter to be sent to Mr. Hubert B. Fuller, who was then acting as attorney for The Hebe Company, the plaintiffs in this case:

"June 5, 1915.

Mr. Hubert B. Fuller, 1110 Williamson Bldg., Cleveland, Ohio.

Dear Mr. Fuller: Yours of June 4th, stating your understanding of the verbal agreement made between Mr. Stevens of the Hebe Co. and this department, received.

I wish to say that your statement is entirely in accord with my understanding. The Hebe Company agrees to change its labels to conform to the rulings and regulations of the national and Ohio pure food departments. Copy of label is to be submitted and approved by this department. The company further agrees not to ship any goods into the state until these labels have been approved.

The department agrees to permit the sale of all Hebe products bearing the old label which was shipped into the state prior to May 1, 1915, and distributed by the Monypeny-Hammond Co., Columbus, Ohio; The Dall-

Milliken Grocery Co., Washington, C. H., and The Weekly-Worman Co., Dayton, Ohio.

Very respectfully,

S. E. Strode,

Commissioner in Charge."

Said letter was sent in response to a letter of inquiry submitted to said official on behalf of The Hebe Company, a copy of which letter is as follows:

"Cleveland, Ohio, June 4, 1915.

Hon. S. E. Strode, State Dairy and Food Commissioner, Columbus, Ohio.

My Dear Mr. Strode: Mr. Stevens, of the Hebe Company, and I were very much pleased with the result of our conference with you and Mr. Bartlow yesterday.

In line with my suggestion, I am writing this letter to you in order that there may be no possible room for misunderstanding as to just what agreement was reached.

First of all, for The Hebe Company we agree that we will not ship into Ohio any more of our products known as 'Hebe' except that which bears the label approved yesterday by you and Mr. Bartlow. As soon as we can secure them from the lithographers, we will send you two copies of this label; one to be retained for your files and the other to be stamped and returned to us.

On the other hand, your office, as we understand it, agrees to permit the sale of all Hebe bearing the old label now in the state of Ohio, which was shipped to May 1st last. We do not know what the exact amount is, but it is not large, because we have in this state only three distributing houses. These houses are the Monypeny-Hammond Company of Columbus, The Dall-Milliken Grocery Company of Washington Court House, and the Weakly-Worman Company of Dayton.

Will you kindly acknowledge receipt of this letter and confirm the correctness of this statement of the situation?

Very truly yours,

(Signed) Hubert B. Fuller."

9. On the twenty-ninth day of June, 1915, said Agricultural Commission of Ohio caused to be sent to The Hebe Company a letter approving the labels used by The Hebe Company, which letter is as follows:

"June 29, 1915.

The Hebe Company, Chicago, Illinois.

Gentlemen: Replying to your communication of recent date, we wish to advise that we have received the labels and the same are approved. However, we request that you send a duplicate of the labels in order that we

may include on same the approval of the department. One to be filed in this department, and the other to be returned to you.

Trusting to hear from you soon, and with best wishes,
I am,

Yours very truly,

Bert Bartlow,
Chief of Division.'

"10. The defendants, Norman E. Shaw, as Secretary of Agriculture of Ohio, and Thomas C. Gault, as Chief of Bureau of Dairy and Foods of the Board of Agriculture of Ohio, have served notice upon plaintiffs and their customers in the state of Ohio that said product 'Hebe' cannot be sold or distributed in the state of Ohio from and after the ninth day of July, 1918, and if after that date said product be found upon the market, said defendants will cause prosecutions to be brought against all wholesalers, jobbers, distributors and retailers selling, offering or exposing for sale the said product known as "Hebe" in the state of Ohio.

"This Stipulation of Facts is not intended to preclude either side from introducing oral testimony at the final hearing of this cause, which may be in addition to or an explanation of the foregoing facts, but no testimony shall be introduced to contradict any of the facts stipulated herein."

A. T. Seymour,
Of Counsel for Plaintiffs.

L. D. Johnson,
Solicitor for Defendants.

Before the introduction of any evidence relative to the composition or wholesomeness of "Hebe" the defendants interposed an objection to any testimony along these lines, upon the theory as stated by their counsel that such testimony was incompetent and irrelevant inasmuch as they contended that the Ohio statute prohibits the manufacture or sale of any product consisting in whole or in part of condensed skimmed milk. But the court ruled that such testimony should be received subject to defendants' objection as aforesaid, to which ruling of the court defendants, by their counsel, then and there duly excepted.

Clarence S. Stevens,

called as a witness on behalf of the plaintiffs, being first duly sworn, testified that he is 28 years of age and is an employe of and stockholder in the Carnation Milk Products Company; that in the past he has been also in the business of wholesaling dairy products, cheese and but-

ter and is engaged at the present time in these lines as well; that he has been in this business since 1895, when he succeeded his father in Cincinnati, Ohio, who was doing business at Cincinnati under the style of S. J. Stevens & Company, conducting a wholesale cheese and butter business; that the witness left Cincinnati in June, 1906, and went to Wisconsin.

That the witness was one of the co-inventors of the product known as Hebe; that in the manufacture of this product pure whole milk only is purchased from dairies which have been inspected by plaintiffs' field men; that within five (5) hours after the receipt of this milk at plaintiffs' plant said milk is skimmed and the cream which is removed is employed in making up the highest grade of creamery butter; that after the cream is removed and within five hours of the receipt of the milk as aforesaid, the skimmed milk remaining is combined by use of a secret process with pure cocoanut oil of the very highest grade obtainable and the resultant product is Hebe; that plaintiffs never skimmed milk from outside sources to make Hebe, but plaintiff buy the whole milk only. The finished product Hebe consists of evaporated skimmed milk and the cocoanut oil aforesaid and is of about the consistency of the evaporated whole milk; that the finished product Hebe contains no other ingredients than the evaporated skimmed milk and the cocoanut fat, and none of the food value of either of these ingredients is lost or impaired in the process of manufacture used in making Hebe and there is nothing in the process that would cause Hebe to be injurious or deleterious to health.

That when inventors started their experiments they tried to secure a stable emulsion in which the vegetable fat would stay suspended in the skimmed milk until it was used by the consumer; that they first started with different per cents of fat; that they found that certain per cents of fat would not remain in suspension, and by repeated experiments they finally arrived at six per cent. and standardized that as being the amount of vegetable fat that could be put into skimmed milk and make this permanent suspension which is a feature of the product; that the flavor of the finished product also had to be taken into consideration, because it was found that certain amounts of fat would produce flavors that were not desirable; that while this fat is neutral to start with, when it was processed and subjected to heat there was a tendency to develop flavors if the heat was not kept down to a certain temperature; that an excess amount of fat

above the standard above mentioned may produce this extra amount of flavors which are undesirable, and this is the reason why six per cent. of fat was fixed upon as the standard and as being the amount of fat which could be gotten to form the emulsion so as to be permanent, and at the same time make a nutritious food; that Hebe is one and eight-tenths per cent. short of the amount of fat which would be present if Hebe were made with cream instead of cocoanut oil; but nevertheless according to the Ohio standard which provides that whole, uncondensed milk shall have three per cent. of fat and twelve per cent. of solids, Hebe has six per cent. fat and twenty-four per cent. solids. (Note: This is twice as much in view of the evaporation of the water.)

That no product like Hebe was manufactured commercially before Hebe was put on the market; that the witness is familiar with various inventions in this country and Europe upon this subject and that he had a number of patents in his possession while testifying.

That cocoanut oil used in the manufacture of Hebe adds to the usefulness and value of the product as a food, since skimmed milk would have about 165 caloric values or heat units, and Hebe, this compound, would have at least 615 units; that is, if the fat were not in Hebe the condensed skimmed milk would have only about in the neighborhood of 330, but the addition of this fat brings it up to 615, which is within forty points of thereabouts of what evaporated whole milk would be; that these units are called caloric units, or heat units, but nevertheless nothing in the product of Hebe or the process by which it is manufactured is injurious or deleterious to health, since as the witness later says, the food value of the product does not depend on heat units, as these only give heat, but on proteins, carbohydrates and fats.

The witness further testified that the label now used upon Hebe, or as a matter of fact any labels that have ever been used on the compound in so far as they relate to the requirements of the State of Ohio, have never been of plaintiffs' own choosing; that the label before the witness is the evolution of opinions given verbally and by letter by various dairy and food commissioners of other states, and by the Bureau of Chemistry of the Department of Agriculture at Washington; that when Hebe was first put on the market the question of a proper label was submitted to counsel in an effort to start right; that a certain label was gotten up which was thought to meet the views of all the food officials; this label was put upon the package and the goods were sold; that in some in-

stances the original label met the approval of the various state commissioners, and in others it did not; that it was then realized that witness would have to get a label that would be approved by the Department of Agriculture in order to make interstate shipments; that a label was proposed which met the requirements of interstate shipments, but this label might meet objections from certain states; that it was then necessary to prepare a uniform label which could be used in all the states, and that involved quite a period of time and a great deal of thought to try to meet the views of these different officers and stand approved by everybody; that to the best of witness' knowledge and belief the plaintiffs propose to use no other label than the present one in the State of Ohio in the future; that one of their former labels was objected to by Mr. Strode, then Dairy and Food Commissioner of Ohio, and in order to meet his suggestions certain changes were made in the wording of the label. The phrase "For Coffee and Cereals, for Baking and Cooking," was suggested by food officials, including the Federal food officials at Washington. The witness has no knowledge of any retail dealer having sold Hebe representing it as condensed milk.

That the product was first marketed in February, 1915.

On cross-examination the witness testified that he is now an employe of the Carnation Milk Products Company and has charge of certain matters in the office; that he is not an employe of The Hebe Company which bought out the witness' old company; that The Hebe Company sells the product and the Carnation Milk Products Company makes the article called Hebe and makes the article called Carnation Milk, and the Carnation Company sells the product called Carnation Milk; that the function of The Hebe Company is to distribute the product Hebe and sell it; that the can of Carnation Milk in evidence (Plaintiffs' Exhibit 10) is marked as containing one pound, and the weight of the can of Hebe in evidence (Plaintiff's Exhibit 4½) is one pound; that witness understands that the caloric or heat units in Carnation Milk is about 655 or 660, and that the calories or heat units in Hebe is 615, and to the extent of this difference Hebe is lower in these units; calories or heat units do not make a food product valuable, it is rather the carbohydrates and proteins.

That a pound of butter fat is worth about thirty-seven cents; that the cocoanut oil put into Hebe is purchased from the American Cocoanut Butter Company and is worth less than butter fat.

That witness has some knowledge of the uses to which evaporated milk is put, and knows that it is often used as a substitute for cream and is also used as a substitute for fresh whole milk when diluted in a certain way, and is also used for cooking and to some extent for infant food when modified.

The witness says evaporated skimmed milk contains all the valuable ingredients of milk except the animal fat, and the fat only goes to make heat, so that outside of the heat all the building qualities are in evaporated skimmed milk; that three things make up food, proteins, carbohydrates and fats; proteins and carbohydrates are found in skimmed milk and the fat is supplied by plaintiffs' vegetable fat; that milk is an ideal emulsion when it comes from the cow; that the vegetable fat in Hebe bears the same relation to the skimmed milk that the butter fat formerly did; and the vegetable fat if not properly put in will rise to the top like butter fat, but is held in permanent emulsion by witness' process, but that witness' knowledge as to the food values of the different products is experimental and comes from marketing them; that he is not a chemist and only knows as to the comparative value of butter fat with vegetable oil from hearsay.

Howard Beatty,

called as a witness on behalf of plaintiffs, being first duly sworn, testified that he lives in Chicago, Illinois, and is connected with the American Coconut Butter Company, which is the company that furnishes the coconut oil to the Carnation Milk Products Company for use in Hebe. He stated that the dried coconut meat is imported by his company principally from the South Sea Islands. It is first received in dried form at the company's mill in San Francisco, and is there crushed and milled and the oil pressed from it. The oil is the coconut oil of commerce which, however, is inedible at that stage because of the decomposition that has taken place in the drying. The oil is then brought to Chicago and the decomposition removed, leaving the pure, fatty coconut oil, which brings it back to the original pure form in which it was in the fresh coconut, without albuminous matter, without color, without taste, one hundred per cent. fat, no free fatty acids and no volatile acids, and absolutely one hundred per cent. pure. The American Coconut Butter Company has its own agents in the South Sea Islands who make selection at the source to get high grade coconuts, and when the product reaches San Francisco there is an opportunity for further selection.

Witness further testified that the American Cocoanut Butter Company furnishes the finest quality of cocoanut oil that can be obtained to the Hebe Company. This oil is absolutely pure, every particle of it. It is absolutely the highest and finest quality that the American Cocoanut Butter Company deal in.

The production of cocoanut oil for edible purposes in American commerce is twenty years old. In the beginning it was nothing. It now amounts to about twenty-five hundred tons, or five million pounds monthly. At the beginning of the period the value was less than one-half what it is now because it was not understood. The quality of the oil was not understood, and its value not appreciated as it is now. It was at that time used for soap purposes.

Cocoanut oil is now used for edible purposes in the form that it is supplied to the Carnation Company, and it is used very largely in the manufacture of confectionery and biscuits, particularly of the better type. It is not a cheap fat; it is one of the highest priced fats they use. It is used because it has splendid keeping qualities. It does not become rancid, and it is used in fancy biscuits that must have keeping quality, and in fancy confectionery. The National Biscuit Company could not make the finest quality of biscuits such as "Nabisco" and other fancy confections of that kind until they found a fat suitable, and cocoanut oil is the fat they selected. About sixty million pounds of cocoanut oil a year is estimated to be used for edible purposes in the United States.

The witness further stated that he never heard the nutritious value of cocoanut fat questioned before. The fruit itself has been a staple article for hundreds of years, and in Europe the business has become a very important one. Here it is comparatively small. The witness stated that he knew of one firm in London that does in a week what this whole country does in a month, twenty-five hundred tons a week for edible purposes. It is a standard ration in the French army, and was in the German army before the war when they could get it. It is a fat that might be used as lard, and it is also churned with milk to make margarine, a substitute for butter to spread on bread. The witness stated that he had used cocoanut fat in his family as butter for nineteen years; that he has six children and the family uses it, and during the last year and a half his family had used no other fat. It is white, without coloring matter, although maid or wife in the kitchen can add color.

Witness further stated that as to the cocoanut fat furnished by his company to the Hebe Company, it is the finest quality that his company knows how to obtain, and that he knows of nothing in it that is injurious or unwholesome as human food.

On cross-examination the witness further testified that his company makes about four grades of cocoanut oil, but these are all of the same quality and differ only as to the melting point. The grade bringing the lowest price is used in biscuit factories and by confectioners. The second and third grades are also used in biscuits or as go-betweens in sandwiches or sugar wafer biscuits.

The witness further stated that the Carnation Milk Company are paying today seventeen and three-fourths cents per pound for the cocoanut oil purchased from the American Cocoanut Butter Company, but at the beginning of the war they were paying something in the neighborhood of thirteen cents. While they are paying seventeen and three-quarters cents per pound, the value of cocoanut oil is nineteen cents per pound. The contract for seventeen and three-quarters cents per pound was made about two months ago.

Dr. E. J. Wilson,

called as a witness on behalf of plaintiffs, being first duly sworn, testified that he has been engaged in practicing medicine continuously since 1882, and as a part of his work throughout his professional life he has studied questions of the digestibility and nutritious value and usefulness of animal and vegetable fats as human food. With reference to the product Hebe, the witness would say that there are two questions involved, viz.: First, the value of the skimmed milk; second, is it enhanced or impaired by the addition of cocoanut oil? Skimmed milk, of course, is practically the full value of the milk less the butter fat that has been removed. Practically all of the carbohydrates are there. Most of the salts are there and also the proteins. The addition of cocoanut oil in the measure of six per cent. is an effort to restore to that milk the butter fat that was removed. The use of cocoanut oil has been employed for a good while without injury as a wholesome food. There is no harm in its addition. The witness further stated that he could see no objection to the use of the combination as an article of food; that the cocoanut oil so used is very nutritious; in fact, quite as nutritious as the butter fat that was removed. The witness then read from Bulletin No. 505 of the United States Department of Agriculture issued in February, 1917. (Plaintiffs' Exhibit 7.) (But inas-

much as this bulletin was afterwards admitted as an exhibit we do not here set out the portion read by the witness.)

The witness further testified that the government bulletin above mentioned is universally regarded as a statement of scientific facts in the medical profession and relied upon as such.

Witness further testified that cocoanut oil as used in Hebe is no different from cocoanut oil used in any other preparation. The cocoanut oil is churned up and reduced to a condition of fine emulsion, which is Nature's method of combining butter fats with the foods that are taken into the stomach. Butter fat or any other kind of fat cannot be acted upon by any of the fluids of digestion until after it has been thoroughly emulsified, and is not acted upon until this emulsified condition is brought about. Therefore in the product Hebe, this cocoanut oil is in a condition in which it can be attacked at once by these digestive fluids, and need not be emulsified by churning in the stomach. Many of the animal fats have to be extracted from the combinations in which they are taken into the stomach, and even then many of them are not efficiently attacked, simply because they are difficult of separation.

The witness further testified that the addition of six per cent. of cocoanut oil to Hebe adds value to it that is very important and very necessary, and is a very healthful part of the food. It adds to the skimmed milk the fat that was taken from it by the removal of the butter fat, and add it in about the same measure, and a fat that actually measures up in the scientific tests to an availability of ninety-seven and nine-tenths as against ninety-six per cent. for butter.

The witness further testified that a well balanced ration is a ration that supplies to the body the elements of growth and energy and heat that are needed for the purpose of repair for the expenditure of energy for the utilization by heat, or for the development of heat. A well balanced ration is not necessarily a fixed formula for any one time of life. A well balanced ration for a babe would be a diet almost wholly of fats, because there is very little needed for the expenditure of energy. The babe needs temperature, the maintenance of just the life processes. For an adult in the active period of life a ration is required that will develop a large amount of energy as well as supply him with the necessary amount of fat for the temperature of the body, and he gets this largely from the carbohydrates and to some extent from fats.

In old age not so much of the carbohydrates are required.

The witness further testified that there is really no difference between vegetable fats and animal fats as a part of a balanced ration; the principle is the same if a vegetable fat is substituted for an animal fat, and this is shown by experiments made by the Department of Agriculture and by other experiments; and the witness stated that these experiments were consistent with what he had observed and with the authorities which he had examined. The witness testified that he knew of no objection to that portion of a ration which consists of fats being supplied by foods containing vegetable fats; that there are some reasons for believing that a vegetable fat is more available and less objectionable in some features than animal fat.

The witness further stated that the cocoanut itself has been used as a food from time immemorial, and that the fatty constituents of the cocoanut were a part of the nut itself, and hence a part of the food; but that they were not separated for the purpose of furnishing a substitute for butter fat until probably within the past twenty years.

The witness further said that Hebe combines the features and elements that ought to sustain life and provide for healthy growth, and that he could conceive of nothing in it that could have any injurious or deleterious effect. The witness also stated that the value of foods depends absolutely upon the condition and temporary needs of the person using them. The experiments of the Department of Agriculture show that the vegetable fat is used even more efficiently than animal fat; that there is no vital defect in the ration of a vegetarian if the vegetables will yield fat in a sufficient amount, and carbohydrates.

The witness further testified that the article contributed by A. E. Perkins in the bulletin of the Ohio Agricultural Experiment Station of December, 1916, (Plaintiffs' Exhibit No. 8) relative to the value of skimmed milk as a food is consistent with other facts studied and examined by the witness.

On cross-examination the witness further testified that the addition of cocoanut oil to Hebe creates a combination substantially like that of milk, the cocoanut oil being a vegetable fat instead of an animal fat. This is not based upon chemical analysis alone, but is based upon the demonstrable availability of such a product as a food in actual experience, and experiments have been conducted over a sufficiently long period of time to know

how it compares with whole milk or with butter fat; that the digestibility of cocoanut oil as compared with butter fat is ninety-seven and nine-tenths as against ninety-six; that one of the functions of these oils and fats is the production of heat, but they are also used in the generation of many other kinds of energy, as much as are carbohydrates. In the case of infants, they are unable to separate the fats from the vegetable foods or animal foods and must take it in a concentrated form, and hence they must get the butter fat from the milk; whereas adults can separate these fats from the combinations in which they are taken into the system; that the infant gets its fat in simple form combined with the milk; that there is nothing quite as good as mother's milk for infants, and that until recently the only substitute for mother's milk was animal milk; that a great many babes have been brought up on animal milk and until recently there has been no other way of giving an oil or a fat to an infant except that obtained from animals, but that now there are vegetable fats that will operate as an excellent substitute for butter, and cocoanut oil has been shown to be a very efficient substitute for fat; but the witness was not prepared to say that it has been used in infant feeding, but rather thought that it had not been so used; that the witness has not prescribed cocoanut oil for any babies, but has prescribed milk. The witness stated that he does not think he would prescribe Hebe to be given to a child instead of milk; that he does not think Hebe would be an infant food; that there is no way of determining whether or not Hebe would be a good food for infants except by actual experience or observation, and that has not been done; that the witness does not think Hebe has been used as a food for infants; that medical and chemical science has not advanced to that stage that it can be determined from the analysis alone what the full extent of the food value of a product is as applied to infants, because every babe is a law unto itself and there are some babes that never even take mother's milk, and cow's milk very often fails and is a very poor substitute for mother's milk.

The witness further stated that he believed that cocoanut oil is not generally used upon the table. The authorities who deal with it simply speak of it as having so many elements of caloric strength and that it is ninety-seven and nine-tenths digestible, and make no recommendations of it at all.

The witness further stated that the subject of nourishment is a very large subject, and is ever increasing; that

there is a very definite knowledge of how foods are acted upon by the body and utilized, but the knowledge of nourishment is not complete yet; that science works out the problem and then it is subject to experiments, and experiments are a very important way of studying the value of foods; that what the witness has said about cocoanut oil has to some extent application to the other fats and other vegetable oils, although these fats differ in that while they all contain certain elements these elements are more available in one kind of fat than in another; that cotton seed oil is in a class by itself and is very different from cocoanut fat.

On re-direct examination the witness stated that any milk that has been subjected to a high temperature is radically changed as a food. There are features of that food called vitamins that will be destroyed by the application of heat; that this is not completely accomplished by pasteurization, but is accomplished by sterilization.

The witness further testified that no condensed milk or evaporated milk is an ideal baby food although it may be in some circumstances, but would not be used as a matter of choice; that in the witness' opinion condensed milk and Hebe are much alike and he would not think that either would be classed as baby food.

Witness testified that Hebe is not strictly a compound, inasmuch as there is no chemical union between the elements, but that it is a mixture, just as whole milk is a mixture, of butter fat in the watery product of the milk. The witness would say that as between whole condensed milk and Hebe for infant food the one is as valuable for nutritive purposes as the other, but one is not as available as the other; that he thinks Hebe would not be as available because it lacks certain flavors; whereas condensed milk retains those flavors of the milk; but in other respects it would not be one whit different, and is just as nourishing. However, you could not get the baby to take it, although it would be almost as digestible as compared with milk. The flavor is so different from that of milk that the witness does not think it could be used as a substitute for infant food. In speaking of the nutritive quality of Hebe, the witness stated that he assumes that the fats in both are the same. However, in point of fact whole milk rarely has six per cent of butter fat, and as a rule it shows less than four per cent; and the witness stated that he thought the State insists that milk sold shall have at least three or three and one-half per cent

butter fat. In Hebe are found all the elements of milk save the butter fat; that is to say, milk, sugar, carbohydrates, and a very small amount of fat that is left in, and an effort has been made to add to that a fat that will measure up as nearly as possible to that which was removed, and the fat used is cocoanut oil which by experiments has been found to measure up fairly well. Witness further stated that his family used Hebe on strawberries, but the witness did not taste them and that he cannot use condensed milk on strawberries. The appearance of it was enough and that his preference is for whole milk on strawberries.

The witness further stated that the value of food as it comes to an infant does not depend upon the taste of the food to the child. He further stated that Hebe contains all the sugar that was contained in the whole milk, as removing the butter fat does not remove the sugar. Sugar is not a very large factor in a baby's diet at any time and constitutes only about six per cent of the diet, and more than that would cause fermentation; and in some cases less than six per cent of sugar is better, because there are some children who cannot take sugar in any large amount.

On re-cross examination the witness further testified that standard milk contains three and one-half per cent butter fat, while Hebe has six per cent of fat. Evaporation would not carry off any of the sugar. The lacto sugar of the milk is found in Hebe and in condensed milk just as it is found in whole milk, and the added sugar in sweetened condensed milk is that much more. There is a larger percentage of fat in Hebe than there is in standard milk, but there is not a larger percentage of fat in Hebe than there is in milk, the standard being three and one-half per cent. No reliance can be placed upon the sense of taste or instinct of a child in the matter of food. An infant will take food that is very deleterious and harmful.

L. A. Scarbrough,

called as a witness on behalf of plaintiffs, being duly sworn, testified that he is twenty-seven years of age; resides at Oconomowoc, Wisconsin, and is a chemist for the complainant companies; that he is acquainted with the method of manufacturing Hebe and has superintendence over the plant where it is manufactured; that Hebe contains no other ingredient except skimmed milk and cocoanut fat; that he has seen it manufactured and has analyzed it; that there is no chemical change occasioned by the process which combines the vegetable fat

with the evaporated skimmed milk; that he knows that Hebe is produced by a special process and that it is a pure product.

(At this point defendants by their counsel interposed an objection to the witness testifying as to the purity and wholesomeness of the product, inasmuch as the witness is not qualified as an expert on dietetics and no further questions were asked of the witness along that line.)

The witness further testified that in making Hebe by the special process mentioned, none of the food value of either ingredient is lost or impaired; that there is nothing in the method by which Hebe is made which injures the milk or the cocoanut oil.

On cross-examination the witness testified that the standard on Carnation condensed whole milk is seven and eight tenths of butter fat and twenty-five and one-half per cent of total solids; and in Hebe the standard is six per cent of cocoanut oil.

Charles F. Healy,

called as a witness in behalf of the plaintiffs, being duly sworn, testified that he is 48 years of age and is division sales manager for the Carnation Milk Products Company and for the Hebe Company; that said companies do not sell Hebe to retailers as a policy, although isolated sales to the retailer may have been made; that said companies sell to wholesalers, and the wholesalers then distribute the product; that the orders for Hebe are accepted at the general office, Seattle, Washington; that the traveling salesmen accept no orders in calling on the trade in Ohio; that Hebe is sold in at least twenty-five states.

The witness further testified (over the objection of defendants by their counsel) that the plaintiff companies placed the same reliance upon the approval of their label by the Ohio Agricultural Department in June, 1915, that they would be warranted in placing on the approval by the duly authorized authority of the state, and that they assumed the label submitted when it met with the approval of the Food Commissioner complied with the laws of the state; and that the plaintiff companies made an effort to do business in Ohio and sent their advertising and sales forces into Ohio and were quite successful so far as the volume of business was concerned, and made a profit from such business.

On cross-examination the witness testified that the Carnation Milk Products Company advertise Carnation condensed milk as an infant food, and that it may be

used for infant food when properly modified by a physician's advice.

It was admitted between counsel for plaintiffs and counsel for defendants that the package of forty-eight tin cans of Hebe sells for seventy-five cents per package less than the same size package of Carnation milk.

On re-direct examination the witness testified that the Hebe label (plaintiffs' exhibit No. 5), which is a duplicate of the label identified in the bill of complaint, is the label that was approved by Mr. Strode in June, 1915, and that no other label has been used in Ohio since that time; and that this is the only label under which Hebe is marketed anywhere.

Witness further testified that Hebe is manufactured in Wisconsin, and also in Seattle, Washington, and shipped to the 25 states mentioned, and maybe more, in the ordinary way in packages, just as shown by plaintiffs' exhibit No. 12, and the cans are in the form in which the retailer distributes them and sells them.

It was thereupon admitted by defendants through their counsel in open court that when the said food product (Hebe) is shipped into the State of Ohio it is contained in tin cans of two sizes, one holding one pound of said product, and the other holding six ounces; and each can bears the label as shown by the bill of complaint; that said cans labeled as aforesaid when shipped into the State of Ohio are packed in fibre shipping cases completely sealed and completely concealing said cans and the label thereon, each case of one pound cans containing forty-eight cans, and each case of six ounce cans containing ninety-six cans; that the shipping case exhibited in court (plaintiffs' exhibit No. 12) is used for the transportation of Hebe into the State of Ohio.

Thereupon the package containing the cans of Carnation Milk Products Company was marked as plaintiffs' Exhibit No. 11 and offered and received in evidence. This exhibit consists of a fibre shipping case containing cans of Carnation milk.

Thereupon, also, the package containing the cans of Hebe Company was marked as plaintiffs' exhibit No. 12 and offered and received in evidence. This exhibit is a large fibre shipping case containing cans of Hebe.

Thereupon it was further admitted by defendants through their counsel in open court that when Hebe is shipped into Ohio in less than carload lots, said fibre shipping cases are marked only with the name of the consignee and such other data as is necessary to insure proper identification of the product and delivery of the

shipment; but that when shipped in carload lots such cases are not marked with the name of the consignee; that when said shipping cases are received by a retail dealer in the State of Ohio, the individual cans, labeled with the label shown by the bill of complaint, are removed from said shipping cases by such retail dealer and exposed for sale on the shelves of said retail dealer as individual units, and in the great majority of instances are purchased by consumers one can at a time.

It was further admitted by defendants through their counsel in open court that Hebe is pure in the sense that there is no dirt or any impurity in it, or anything except skimmed milk and coconut oil, and that they have no evidence to show that there is anything in the way of impurities coming into it in the factory; and it is admitted by defendants through their counsel that the superintendent and the manager of the complainants' manufacturing plant who are present in court would, if called as witnesses, testify that the manufacturing processes are all clean and pure, and that the product Hebe when it comes through is tested and found to be clean and pure.

The witness further testified that he does not know whether the plaintiff companies make more money off of the Hebe than they make off of the Carnation milk.

John A. Wesener,

called as a witness on behalf of plaintiffs, being duly sworn, testified that he is 52 years of age and that his occupation is consulting chemist in research and medical science; and has been engaged in this work for about 25 years or more at Chicago, Illinois; that he has had quite an extensive experience in the examination of food products with reference to their digestibility and also with reference to their nutritious value and usefulness as a diet; that he has had such experience not only as a chemist and physiologist, but also as a doctor of medicine; that he has made feeding experiments on both men and animals, and has also studied the effect of food on the internal organs of the lower animals and also upon human beings; that he took his work as a chemist at the Michigan Agricultural College and the University of Michigan, graduating from the latter institution in 1888; that he took a degree in medicine in 1894 from the medical department of the University of Illinois; that he held the chair of chemistry in that institution for twelve years; that he was also professor of chemistry in the Pharmaceutical School of the University of Illinois for a short time and also in the dental school, which is now the

dental department of the Northwestern University located in Chicago, Illinois, that he is president of the Columbus Laboratories in Chicago and that he has been doing business there in research medical work and in food analysis and in toxicology ever since 1893; that the medical work is done for the physicians in different parts of the United States to aid and help them in making diagnoses from tissues and from excretions and secretions that they send in; that he is also a member of the executive staff of toxicologists of the Coroner of Cook County, Illinois; that he has also done some research work in the United States Agricultural Department, and also for the Experimental Station of Ohio on seed wheat to determine which was the best wheat to use to produce growth.

The witness further testified that he has analyzed the product Hebe; that he has a copy of his analysis.

Thereupon the witness' copy of his analysis of Hebe and also his analysis of Carnation Milk was offered and received in evidence and marked plaintiffs' exhibit No. 14, both of said analysis being on the same sheet of paper, and is in the words and figures following:

Exhibit No. 14.

Name: The Hebe Company.

Address: Chicago, Illinois. Date: 5-8-17.

Subject: 18299—Hebe for complete analysis.

18300—Carnation Milk for complete analysis.

	Hebe	Carnation
Fat	6.75%	8.55%
Proteins	6.60%	6.40%
Ash	1.75%	1.54%
Milk Sugar	10.20%	9.57%
<hr/>		
Water	25.30%	26.06%
	74.70%	73.94%
<hr/>		
	100.00%	100.00%
Acidity as Lactic Acid....	.84%	.72%

Thereupon a certain paper showing colored illustrations of the comparative composition of various milks was offered and received in evidence as plaintiffs' Exhibit No. 15, with the understanding, however, that the illustrations are not drawn absolutely accurate to the scale, but are substantially so; and it was admitted that if whole milk as shown on the illustration were condensed one-half like Hebe and Carnation it would show 630; and it is further admitted that Carnation milk as

shown on the exhibit is that of standard, or what is called Standard condensed milk.

Said Exhibit No. 15 is in the words and figures following:

Plaintiffs' Exhibit No. 15.



Water



Fats



Protein



Ash



Carbohydrates

Raw Milk



Skimmed Milk



Hebe



Carnation Milk



The witness further testified that he had heard the description of Hebe as read to Dr. Wilson, a preceding witness, when he was on the witness stand; that the witness is familiar with Hebe; that he has analyzed Hebe and that such analysis did not show the presence of any other ingredient except skimmed milk and cocoanut oil.

The witness further testified that cocoanut oil is of equal value and usefulness as butter fat in such a product as Hebe and is just as nutritious as an equal amount of butter fat, and is no more injurious or deliterious than butter fat.

The witness further testified that skimmed milk has a very high value and usefulness not only for building and sustaining life in so far as it is necessary for the body to have carbohydrates and proteins, but also from the standpoint of furnishing energy as well; that he has read the article on skimmed milk appearing in the bulletin prepared at the Ohio Agricultural Station (plaintiffs' exhibit No. 8) and that the facts appearing in that article agree with witness' knowledge, and that the facts given in that bulletin are about as well established with chemists as we are agreed that the sun rises in the east and sets in the west.

The witness further testified that the percentage of cocoanut oil found in Hebe not only constitutes a substantial element, but a very necessary element to produce a properly and correctly balanced food, because with all the good elements in skimmed milk, carbohydrates, mineral water and proteins, there must also be fat in order to have a correctly balanced food; that vegetable fats, at least the common ones that are used in foods, are of the same value as those from animals, but that there is one difference; namely, animal fat such as beef tallow and possibly mutton tallow are not quite as digestible because they have a higher melting point; and fat to be well adapted for human food should have a melting point somewhat lower than the temperature of the body; that vegetable oils are liquid, or semi-solid, and therefore as far as the physical properties are concerned, and assuming that the chemical properties are identical or in the same relationship with those found in animal fats the vegetable oils make the more ideal fats from a digestive and assimilative standpoint; that fats used as food are composed of glycers and acids called fatty acids and are combined in such a way that they form a salt and are known in chemistry, therefore, as Glycerins; that when a fat is treated with an alkali the glycerin is split off and the alkali takes the place of

what is left of the fat, of the glycerin, and that makes a soap, what is known as a soap; that the important glycerins in all fats and the common ones are what are known as stearin, palmitin, and olein found in beef tallow, mutton tallow and lard; that in lard the stearin is very small, and as stearin has the highest melting point, therefore it is that beef tallow and mutton tallow are solid at the ordinary temperature, whereas the lard which contains less of the stearin at the ordinary temperature is softer; that butter contains these primary glycerins; but in addition it contains some other glycerin known as laurin; that is, lauric acid combined with glycerin, myristic acid combined with glycerin, caproic acid combined with glycerin, capryllic acid combined with glycerin, capric acid combined with glycerin, and butyric acid combined with glycerin; that all of these except palmitin, stearin and olein and the lauric and the myristic are volatile and that when butter is put through a fermentation process a slight percentage of these free volatile fatty acids is liberated and gives the butter flavor; that the only vegetable fat known that approximates butter in this chemical composition is cocoanut fat, which has all of these fatty acids that are found in natural butter with the exception of butyric or butyric acid; that all the other volatile fatty acids that are so characteristic in butter are found to the extent of 25% in cocoanut fat, and therefore cocoanut fat in that respect simulates butter more than any other fat known; that the presence of 25% of these volatile fats does not mean the cocoanut fat is just 25% in value that of butter, but this has reference only to its chemical composition; that cocoanut oil has the same caloric value as butter fat, weight for weight, and it was the witness' purpose in describing volatile fats to go into the chemistry of the peculiarity of the fats of butter; that the presence of 25% of these volatile fats in cocoanut oil signifies that it is a fat which approaches nearer to the chemical composition of genuine butter than any other fat known; that the 25% applies only to the volatile fatty acids, and that as to the other elements the cocoanut fat would probably contain a higher percentage.

The witness would say that Hebe would be comparable with the evaporated milk, with the possible exception that Hebe has probably been processed a little higher than evaporated milk, and that accounts somewhat for its little more of a caramel color; and the odor of Hebe does not come from the fat, but probably comes from

something originating in the milk sugar contained in the skimmed milk; that a neutral fat has no odor and only begins to have an odor when the free fatty acids are driven off like in butter; that in the witness' opinion the odor of Hebe is due to the slight caramelization of the milk sugar.

The witness further testified that according to the tabulation shown on plaintiffs' exhibit No. 14, Hebe has 10.20% of milk sugar, and Carnation has 9.75% of milk sugar; that there is evaporation in both Hebe and in Carnation; that there is no added sugar in either.

The witness further testified that the difference between butter fat and cocoanut fat in reference to the variation of seventy-five per cent in the volatile acids has absolutely no effect upon the food value of the two fats, and that it makes no difference whether 75% more of the volatile fatty acids are present or not because, weight for weight, the value of the food would be the same and that the only figure the volatile acids cut is that if butter is the sort of a food product which is best adapted to man, then a product of the vegetable kingdom which discloses on analysis a similar fat nature, may rightfully be assumed to be equally as well adapted for human consumption as the actual butter fat; that it is not true that a good quality of butter will have properties that are not found in cocoanut oil; that the difference between cocoanut oil and butter fat is on the psychological side; that the looks, taste and smell of a product adds to the enjoyment and gives rise to a psychological action on the gastric juices and digestive fluids; but eliminating this psychological effect the same food value can be obtained from fresh, white, unsalted butter as from a butter that possibly would stimulate the appetite and digestive juices more; that as far as nourishment is concerned the one would be just as good as the other; that a baby has absolutely no taste and will eat things that are offensive to an adult.

Witness further testified that the palatability of butter is something that has been put there simply a matter of bacteriology, that butter is made from cream which has been treated with what is called a starter to inoculate it and start a growth in it; that is, there is a lactic acid formed and that precipitates the cheese or the casein and then the butter is worked out of this fermented mass and what is left is the buttermilk; that a certain amount of buttermilk and of this fermented product enters into the finished butter fat; that after that salt is added to flavor it; that the bacteria present act

upon these volatile fatty acids and this starts a little of the free fatty acids which give it that palatable flavor; that if cocoanut fat is treated in the same way the result will be nearer to the butter flavor than could be obtained from any other oil, and then if it were colored and put through the same process as butter, the result would be fairly good tasting butter because it has those same elements in it which are amenable to the same fermentation processes through which butter fats go in order to make butter; that oleomargarine is treated in the same way to make it palatable.

The witness further testified that so far as he has been able to ascertain in all of his research work and from the reading of literature, vegetable fat will sustain life to the same extent and the same degree as the best animal fat; that a product like Hebe containing 6 per cent of cocoanut oil and 94 per cent of evaporated skimmed milk will certainly sustain life and produce growth to the same extent as whole evaporated milk will do, providing it is of the same concentration so that pound for pound there would be just as much nourishment obtained from Hebe, providing it had the same chemical analysis as to the amount of fat, carbohydrates and proteins, as would be obtained from whole milk; that if Carnation milk only had six per cent fat and the carbohydrates were the same as in Hebe, then pound for pound the food value would be exactly the same; that the comparative value of cocoanut oil and butter fat for life sustaining and nourishment and growth are practically the same, although a vegetable fat such as the cocoanut oil is slightly more digestible; that the human being can use vegetable fat of this nature as efficiently as it can use animal fat for sustaining life.

The witness further testified that Hebe is as fit for infant food as condensed whole milk or evaporated whole milk.

On cross-examination the witness testified that there are no qualities present in natural butter fat necessary for the growth of an infant which are not found in Hebe.

The witness further testified that cotton seed oil is just as highly digestible as butter fat, and is so accepted by all leading authorities of the world; and that it is just as nutritious; that both cotton seed oil and cocoanut oil are just as nutritious and just as digestible as butter fat, and this proposition is accepted by all leading authorities; that the same thing is true of olive oil, corn oil, peanut oil, and possibly rape seed oil; that so far as efficiency and economy from a nutritional standpoint

is concerned, they are the same as butter fat, but they are not the same in their physical properties.

The witness testified that butter fat differs from all other animal fats such as tallow, beef tallow, mutton tallow and hog fat, in the fact that it has these lower fatty acids known as volatile fatty acids which, when they are split off from the glycerins, can be volatilized by distillation, whereas the other fats known as palmitin, stearin and olein will not distill at low temperatures; that coconut fat has about twenty-five per cent. of these particular fatty acids which are characteristic of a butter fat; that these volatile fatty acids are of no more value from a nutritional standpoint than are the fatty acids of the higher melting point such as stearin, palmitin and olein; that the only effect of these volatile acids is that the bacteria will act upon the glycerids that have these volatile fatty acids and liberate a small trace of them, thereby giving the butter flavor to the fat, and this is a factor in making the product somewhat more palatable; but from a nutritional value there is no difference; that these volatile fatty acids are found not only in the milk of a cow, but in the milk of other animals.

Witness also testified that usually a baby has no taste and will take cod liver oil and castor oil, which are not palatable to an adult; that a baby has not the taste so as to detect a bitter substance; that the sense of taste is not very highly developed in an infant.

The witness further testified that he was first retained by the Hebe Company and Carnation Milk Products Company a week previous to giving his testimony; that he testified in the oleomargarine case in this court; that he has examined quite a number of fats that were substitutes for butter fat and has done quite a bit of work in that line.

On redirect examination the witness testified that he had fed hundreds of babies that could not take mother's milk, or milk of any kind; that he had also analyzed thousands of samples of breast milk and had also fed young animals; that he had helped to raise young mountain lions on buttermilk at Lincoln Park, Chicago; that it is very hard to raise young mountain lions in captivity because they die of rickets; that Dr. Evans, in association with the witness, used to make all the post-mortem examinations at Lincoln Park of the animals that died, examining everything from a baby elephant to a boa constrictor; that these young lions that are born every year would seem to get along all right and then suddenly develop rickets, getting a tremendous, ugly

looking head, and a terrible paw paralysis, due to the fact that the spinal column broke down and these young animals died of the rickets; that finally it was decided to tie down the mother and get some of her milk, and when this was analyzed it was found that the rickets was due to the milk; that the right kind of a milk compound from cow's milk was then made up and these young mountain lions were brought up on this modified milk and there was no trouble in raising them; that then the diet of the mother lioness was changed and fat added, and also a small amount of carbohydrates, and after that the mother lioness produced good rich milk and was able to raise her own young; that he has had a lot of experience with infants in association with Dr. Christopher, who was probably one of the most celebrated baby specialists in Chicago; that they sometimes found infants to whom milk of any kind is a deadly poison; that the witness had analyzed mother's milk that had a perfect chemical composition and yet the mother's baby was poisoned by it; that such a baby when placed on the breast of a wet nurse, the analysis of whose milk was identically the same as that of the mother's milk, took that milk of the wet nurse and it agreed with it and it thrived; that the witness had treated babies to whom milk of any kind was a deadly poison, and that in such cases he would have to feed them on barley water or other food and take away all the milk until the trouble ceased, and then, of course, the baby would come gradually back to milk; that in some cases in his experience he found that about the only thing he could feed a baby was this Eagle brand of condensed sweetened milk, and that he knew of no law in nourishment why it worked, but only knows that it did work and that the baby thrived on it.

The witness further stated that whole cow's milk would not be a fit food for an infant over a long period of time, for the reason that such milk is too high in proteins and these proteins in cow's milk are of a different nature to the protein of mother's milk; that whenever the gastric juices and acids of the stomach act upon cow's milk it produces great, big, lumpy curds, whereas on mother's milk it does not produce curds, and that therefore cow's milk in order to be fed to a baby over a long period of time should be modified in such a way as to reduce the protein valuation in it and if possible modify it in such a way that the ratio of one part of lactalbumen to one part of casein is obtained instead of three parts of casein to one of lactalbumen.

Witness further testified that it is largely through the

first year of an infant's life that its taste is indifferent to the kind of foods that are given to it.

The witness further testified that upon the basis of Hebe containing 615 calories and Carnation containing 655 or 660 calories, the Carnation would naturally have a little higher caloric value than the Hebe, because the former is higher in butter fat; not because it is butter fat, but because it is higher in fat; that if there was as much cocoanut fat in Hebe as there is butter fat in Carnation, the caloric value of the two would be the same.

Curtis C. Howard,

called as a witness on behalf of the plaintiffs, being duly sworn, testified that he is by profession an analyst and has been engaged in that work for thirty-nine years; that he has taken the Bachelor's and Master's Degree from the State University (of Ohio) and that he is also a graduate student of Johns Hopkins and the University of Berlin; that he has been teaching for 39 years in the Starling Medical College, the Ohio Medical College, and has also taught for a short time in the College of Medicine in the State University; that his work has not lain so much in the direction of ascertaining and determining the digestibility and nutritious value of fat in human food, but that his work has been chiefly in the direction of pharmaceutical, medical and toxicological work; that to some extent he has had experience as a food analyst.

The witness further testified that he has made an analysis of the product Hebe and found it to contain 6.17 of fats and 24.61 per cent of total solids; that he understands what Hebe is manufactured from; that cocoanut oil in a product like Hebe has practically the same nutritive value and the same digestible value as butter fat or any of the other oils; that the skimmed milk in such a product as Hebe contains all the carbohydrates and most of the proteins of whole milk, and therefore has the value of the whole milk as regards these; but has a very small amount of butter fat left in it; that the addition of 6% of cocoanut oil to a product like Hebe would have the effect to restore the nutritional value which has been removed by the abstraction of the butter fat; that by the process of combining the cocoanut oil and the skimmed milk to make Hebe no chemical change takes place and there is no loss of food value of the elements; that from the standpoint of a well balanced ration for human consumption the nutritive value and digestible value of a food containing vegetable fat are practically the same as a food containing animal fat;

that both products in a general way have the same nutritive power to furnish the source of energy and heat producing qualities; that foods containing vegetable fat have the same heat value and the same energy producing value as fats of animal origin; that the witness has had only a limited time in which to study the product Hebe, but that he has been unable to imagine any direction in which there could be anything deleterious in character in Hebe; that he has seen no such indications. Witness testified further that there is no chemical combination of the ingredients composing Hebe, there is no compound, because all that proteids and carbohydrates or proteins and fat make is a mixture, and when you take proteins and carbohydrates out of skimmed milk and add a vegetable oil it makes a mixture.

On cross-examination the witness testified that as related to the presence of equal quantities of butter fat and of cocoanut oil, the nutritional values are so nearly the same that there would not be any difference in the life sustaining quality or the nutritive value of these two; that he regards the growth promoting value of such a food as directly related to its nutritional value, and that this is known to be true as a scientific fact; that this proposition cannot be exclusively established through scientific processes, but that the best way to determine it would be by feeding experiments upon animals to determine the growth; that in laying down the proposition that the growth promoting value is the same, the witness took into consideration not only scientific conclusions, but also the various sources of information based both upon scientific facts and practical study of the food values of these substances as determined by the calorimeter and as illustrated by feeding to animals; that whole milk has a higher food value than skimmed milk, because of the nutritional value of the fats which the former contains, and these fats are a very necessary element in human life, and if they do not come from the milk they must come from some other source; that cocoanut oil does not have the same chemical elements as butter, in that the latter contains different glycerids; that the cocoanut oil does not run as high in glycerids which yield the volatile fatty acids as does butter fat; that he is not familiar with the figures as to these volatile fatty acids given by the preceding witness (Dr. Wesener); that he does not say that the glycerids are not an important part of the nutritive value of foods; that practical experiments are necessary to

determine the nutritional value and so on, which chemistry can not do; that he only knows in a general way that the glycerids of the volatile fatty acids are not as high in cocoanut oil as they are in butter fat, and that one of the glycerids, namely: butyrin is lacking in cocoanut oil, and that butyrin is the chief glycerid of the volatile fatty acids in the butter fat; that he would not say that these glycerids are not the important part of the nutritive value of foods, but that the nutritive value of food is based not on the volatile fatty acids, but on the total glycerids in the two products; that feeding experiments would be necessary to determine whether what the cocoanut oil lacks in the glycerids mentioned is made up by an excess in other glycerids; that for certain results feeding experiments are to be relied upon rather than chemistry; that chemistry is making very rapid advances, but probably will never be used to determine those facts which must now be determined by experiments because it is a different source of investigation; that the knowledge of the nutritive value of these different glycerids is not derived from a knowledge of the proportion of these that are present in different fats as determined by analysis, but rather from the methods of the calorimetry and the methods of feeding; that chemistry alone will not give all this information; that calorimetry is rather related to physics than to chemistry.

The witness further stated that after the butter fat has been taken out of milk the nutritive value may be restored by the insertion of cocoanut oil, and thereby make just as good a food.

Charles F. Healy, recalled as a witness on behalf of plaintiffs, testified that the plaintiff companies have at all times sold Hebe as "Hebe," and not as milk; that they distributed Hebe through wholesale grocers; that to the best of the witness' knowledge no wholesale grocer has sold Hebe other than as "Hebe"; that the witness has heard of retail grocers who at times sold Hebe as milk, just as some persons might sell some other coffee as "Reo" coffee, or corn syrup as "molasses"; that witness has written to plaintiffs' salesmen and instructed them that the best future for Hebe was to sell it for what it is as a new food product, and not as milk; that the witness has repeatedly instructed all of plaintiffs' selling representatives that Hebe is a milk compound and must be sold as such, and that he has no knowledge that it was ever sold by the plaintiffs or by their salesmen as other than Hebe or as a compound.

On cross-examination the witness stated that in August, 1916, the Monypeny-Hammond Company was a jobber and distributor to which plaintiffs sold Hebe.

Thereupon plaintiffs by their counsel offered in evidence two certain letters to the introduction in evidence of which letters defendants by their counsel then and there objected, on the ground that such letters are not relevant and that no official of the state has the right to bind the state, and that knowledge of the law is presumed on the part of the plaintiffs. The Court ruled that said letters might be received in evidence subject to the objection, and thereupon said letters were received in evidence and were marked plaintiffs' Exhibit No. 16 and plaintiffs' Exhibit No. 17.

Said Exhibit No. 16 is in the words and figures following, to wit:

July 21, 1916.

Dr. C. L. Alsberg,
Chief of Bureau of Chemistry,
Department of Agriculture,
Washington, D. C.

My Dear Doctor:—

This office has before it for consideration the question of the sale of "Hebe," which according to the label under which it is sold is "A compound of evaporated skimmed milk and vegetable fat."

I am enclosing herewith a copy of the label and will ask you to be kind enough to advise me, if you can, as to what information you have concerning the classification of this article; i. e., is it in your opinion a compound, or is it a condensed or evaporated milk? Any other information concerning the matter which you may be able to furnish will be greatly appreciated.

Respectfully,

(enclosure)
JGP/Mc/

Edward C. Turner,
Attorney General.

Said Exhibit No. 17 is in the words and figures following, to wit:

Price

Department of Agriculture,
Bureau of Chemistry,
Washington, D. C.

Address Reply
Chief, Bureau of
Chemistry, and
refer to
FILE 221

Received
Aug. 4-1916
Attorney-General
Aug. 2, 1917.

Hon. Edward C. Turner,
Attorney General,
Columbus, Ohio.

Sir:

Replying to your letter of July 21, 1916, there is enclosed a copy of Food Inspection Decision 158, containing a definition adopted by the Department for condensed milk, evaporated milk, or concentrated milk. Articles which do not conform to the definition are regarded as not being entitled to be designated as condensed milk, evaporated milk, or concentrated milk.

The Bureau is informed that Hebe is a mixture of evaporated skimmed milk and cocoanut fat. It is considered to be a compound within the meaning of section 8 of the Food and Drugs Act, in the case of food, second subdivision of paragraph fourth, which provides that an article of food which does not contain any added poisonous or deleterious ingredients shall not be deemed to be adulterated or misbranded—

In the case of articles labeled, branded, or tagged so as to plainly indicate that they are compounds, imitations, or blends, and the word 'compound,' 'imitation,' or 'blend,' as the case may be, is plainly stated on the package in which it is offered for sale; x x x

Respectfully,

Enclosure:

Cir. 21.

W. P. Jones,
Assistant Chief.

(It was stipulated in open court that the date of plaintiffs' Exhibit No. 17 should be August 2, 1916, in lieu of August 2, 1917, the latter date being a clerical error).

Plaintiffs rest.

Arthur W. Reynolds,
called as a witness in behalf of the defendants, being duly sworn, testified that he resides at 920 Franklin Avenue (Columbus, Ohio); that his occupation is that of contractor; that he was a major in the Quartermaster's Department at Camp Willis, near Columbus, Ohio, in August, 1916; that in his capacity as major in the Quartermaster's Department he was connected with the letting of contracts; that Monypeny-Hammond Company made a contract with witness for the furnishing of certain materials.

Q. (By Mr. Pretzman). I will ask you whether preliminary specifications were sent to the Monypeny-Hammond Company as well as to other companies?

A. I think so, yes.

Q. Have you a copy of those specifications?

A. Yes, sir.

Thereupon the witness produced the said specifications and same were offered and received in evidence as defendants' exhibit "A", and the fifth paragraph of said specifications read as follows:

"MILK, evaporated: unsweetened, pint cans, 48 to case. Specify brand."

Q. (By Mr. Pretzman): Now you may tell the Court whether the Monypeny-Hammond Company furnished an evaporated milk under and in pursuance to that arrangement.

A. They did, yes.

Q. If you know, what kind of milk was it they furnished?

Mr. Seymour; (for plaintiffs.) We object on the ground that the Monypeny-Hammond Company if they did anything illegal are responsible, and not the plaintiffs, and that their acts are not binding upon the plaintiffs.

The court ruled that said evidence should be taken subject to objection.

A. Well, if I am not mistaken, they furnished two or three brands of milk.

Q. I call your attention to a brand named Hebe and ask whether any milk of that kind was furnished by them?

A. Yes.

Q. How much, if you know?

A. I could not say as to that.

Q. A large quantity?

A. I think, if you will allow me to refresh my memory, I think we called for about 1500 cans at a time (after consulting memoranda)—Yes, 1562 one pint cans. Now we asked for that. That was supposed to be—we anticipated that as being five days' supply. About every five days we asked for proposals on that amount of milk.

Q. But you can't say about what quantity of Hebe was sent there?

A. No, I can't.

Q. What was done with the Hebe that was sent there?

A. It was placed in the storeroom and issued.

Q. Was all of it used?

A. I think all of the first lot was issued.

Q. What as to the second lot?

A. Before the second shipment was issued I think there was a protest against it and it was returned.

On cross-examination, Mr. Seymour (for plaintiffs) asked the following question and obtained the following answer:

Q. Did you look at it when it was delivered?

A. No, I can't say that I did.

Mr. Seymour: I am in just a little unfortunate position; if this is irrelevant I don't want to cross-examine and make it relevant; but if your Honors will permit my cross-examination in order to get the truth, subject to its all being ruled out on our motion, I would be very glad to go ahead.

Judge Warrington: It might be that some of it would go out and some of it would remain. I can't tell in advance.

Mr. Seymour: Well, I don't believe I want to cross-examine at my peril. I will not ask him any questions.

Edwin James,

called as a witness on behalf of defendants, being duly sworn, testified that he resides at Glenroy, Ohio; that he is inspector for the Ohio State Board of Agriculture; that he is familiar with the product known as Hebe; that on May 11, 1917, he went into Schreiber's grocery store, Ironton, Ohio, and asked the lady clerk if they had any condensed milk; that she stated that they had the Hebe brand, and witness then said "That will do. Give me two cans." That she gave him two cans and he asked the purchase price and she said fourteen cents; that he paid her for it and she wrapped it up and he left with it; that on the same day he went into Smith's grocery store, East Ironton, Ohio, and asked him if he had any condensed milk; that he said "Yes, sir;" that the witness then said "What brands have you;" that the storekeeper named over two or three different brands and said "I have Hebe also, no use of my denying the fact, for you see it;" that the storekeeper had Hebe on his lower shelf; that the witness purchased two cans and paid ten cents.

All the evidence of this witness was received subject to objection of complainants on the ground that if these retailers did anything unlawful or made any misrepresentations, they alone are responsible because there is no way of preventing every man who is conducting a grocery store from doing something wrong, and all this line of testimony was objected to by plaintiffs through their counsel before any such testimony was introduced. But the court overruled said objection and allowed the evidence to be received, to which ruling of the court plaintiffs, by their counsel, then and there duly excepted.

Thereupon defendants offered in evidence a certain part of the issue of the "Columbus Citizen" of Friday, April 21, 1916, showing the advertisement of the Fulton Market Company, Town street and Fourth street, and the record shows that the total advertisement of the Fulton Market is about four inches wide and six inches long, and the part that refers to Hebe milk consists of only three lines in the corner and in small type, and reads as follows:

"Hebe Milk. Large regular 10c cans, Saturday, 2 cans 15c."

Plaintiffs thereupon objected to the introduction of said advertisement in evidence, on the ground that same is irrelevant, incompetent and immaterial and cannot bind the plaintiffs, but the court ruled that said advertisement should be received in evidence subject to plaintiffs' objection as aforesaid, to which ruling of the court complainants, by their counsel, then and there duly excepted.

John L. Hutchinson, called as a witness on behalf of defendants, being duly sworn, testified that he is instructor at the Ohio State University, and has been such since September, 1914; that he is a member of the Department of Agricultural Chemistry, which is the College of Agriculture; that he teaches there; that his line of business is connected with dairy chemistry and with food and nutrition; that he is familiar with the product known as "Hebe;" that he has had it in his possession. The first shipment was about June 10, 1916, and the second in January or February, 1917.

It was thereupon stipulated between the parties hereto through their respective counsel in open court that inasmuch as Plaintiffs' Exhibits Nos. 1 and 2 will spoil, plaintiffs may, at any time when needed in this court and in a reviewing court produce duplicates substantially the same which may be regarded as the originals of Exhibits 1 and 2.

The witness further testified that the first shipment which he had of Hebe was a little different from Exhibit No. 4 $\frac{1}{2}$, and was in six-ounce cans, and the labels were a little different in that the phrase on the smaller cans, "for coffee and cereals, for baking and cooking," was eliminated, and in lieu thereof appeared the statement that you would like it better than milk; that in the other shipment the cans were the same as in Exhibit No. 4 $\frac{1}{2}$ and bore exactly the same label.

Witness further testified that the first shipment of

Hebe which he obtained was fed to experimental animals to test out its nutritive value in comparison with the condensed skimmed milk, the condensed skimmed milk used being the "Everyday" brand purchased from the John Wildi Company; that these experiments were conducted upon white rats; that these animals were used because they were more available at that time, and because they live upon practically the same kind of foods that a human will; and further because they are small animals and do not require as great a volume of food to conduct the same experiments, and the digestion, the nutrition is practically the same as it is in a human; that the experiments were conducted upon a dozen rats on each brand of milk; that is to say, a dozen animals were fed upon Hebe and a dozen upon the "Everyday" evaporated milk, which is condensed whole milk; that the first series of experiments was run eight weeks, and then was duplicated; that the results of the first experiment were that in feeding these two brands of milk a difference was noticed in the disposition of the animals—a difference in weight; that is, of the animals on one milk and the animals on the other; and also a difference in the state of health of the animals was noticed; that on an average the animals fed upon "Everyday" milk made a gain of about 25% over the ones fed upon Hebe; that the health of the animals could only be judged by the appearance and actions, and that in nearly every case it was noticed that the animals fed upon the Hebe were subject to infections and that the appearance of the hair of these animals was not smooth and slick like a normal rat; that in one case this last result was noticed upon the group fed on condensed milk, but only one was affected out of the twelve, while it happened with about five or six of the group fed upon Hebe; that these infections were caused by parasites that appeared upon the ears and nose and around the eyes of these animals causing sores in a scale form, and this was noticed more with the Hebe animals than with the condensed milk animals; that these two groups of animals were picked from the same litter; the same age, and as nearly the same weight as possible, and there was very little difference in the animals to begin with; that neither group of animals lost weight, but the Hebe group did not make the gain that the others did; that the infected rat in the "Everyday" group died and that there were perhaps one or two others that had a small amount of infection in the "Everyday" group, but not in general; that five or six of the Hebe group showed infection.

Thereupon counsel for defendants asked the witness the following question:

Q. Professor, when you notice susceptibility to infections that way what does that indicate?

Thereupon plaintiffs, through their counsel, objected to the witness answering the above question on the ground that he has not been qualified, and with the court's permission counsel for plaintiffs examined the witness as to his qualifications; and the witness testified that he is twenty-five years of age; that he took his degree of Bachelor of Science at the Kansas State Agricultural College and took his Master's degree at the Ohio State University; that he studied in the branch of agricultural chemistry principally; that in the undergraduate work he studied the physiology of human beings; that he did not study pathology, and has not studied pathology of animals as to diseases; that he has studied bacteriology, but has not studied it with reference to diseases; that he knows the digestive system of a white rat is practically the same as that of a human being; that he has never examined the stomach contents from a human being and has never made any dissection of the human stomach; that the human gastric juice contains four-tenths of one per cent. hydrochloric acid and contains a protein fluid, the exact percentage of which he does not know, and that it also contains digestive enzymes; that in his undergraduate work he took one year on the subject of physiological chemistry which involved the digestion of the stomach, and that he has studied this subject ever since he has been at the University, and this is his third year at the University; that to start with, the rats subjected to the experiments were young rats; that young rats normally will develop to fairly large size in from five to six months; that these rats weighed from thirty to forty grammes each to start with, which would be about the size of an ordinary mouse; that to commence with these rats were about four or five weeks old; that he does not know what the ordinary age limit of a white rat is; that he knows of one such rat that lived over a year; that he knows nothing as to the age limit of an ordinary rat; that his study of these animals has been very limited as to the length of their lives; that in experimental work parasitic diseases in white rats are taken to indicate mal-nutrition; that out of general experiments (other than experiments with Hebe) conducted on two or three hundred by the witness probably one-fourth of these animals had parasitic developments in a more or less degree; that all of

these animals had not been under the direct personal observation of the witness and he did not have control of the experiments.

Thereupon the court ruled that the witness was qualified to answer the question and that the objection of plaintiffs went rather to the weight of his testimony, to which ruling of the court plaintiffs, by their counsel, then and there duly excepted.

The witness further testified that in speaking of the disposition of the experimental rats, he meant the friendliness of these rats in handling them; that he noticed that the Hebe rats were more apt to bite than the ones that were fed on "Everyday" milk; that white rats fed upon an adequate diet are generally pretty tame and are more or less of pets; but if they are given an inadequate diet they are not so tame; that one of the "Everyday" rats died during the experiment, and that the witness thinks that five died on the other side; that the Hebe rats were probably inferior in general appearance to those fed upon the "Everyday" milk.

Thereupon plaintiffs, through their counsel, moved to strike out the statement of the witness as to the comparisons of the general appearance in the two groups of rats, on the ground that said statement was a mere conclusion of the witness, but the court denied plaintiffs' motion to strike out said testimony, to which ruling of the court plaintiffs, by their counsel, then and there duly excepted.

The witness further testified that they made a second experiment which was carried on at exactly the same time as the first experiment, but upon a different group of rats; that this second experiment was a comparison of butter fat with cocoanut oil; that in his second experiment the diets of the two groups were exactly alike with the exception that in one group the fats in the diet were supplied by butter fat, whereas in the other group the fat was supplied by the same percentage of cocoanut oil; that in this second experiment the cocoanut oil was fed to eight rats, and the butter fat to seven rats. This discrepancy in numbers being due to the fact that an insufficient number of rats was available at that time; that the results of this second experiment were more marked than the results of the other experiment, in that the average gain in weight of those fed upon the butter fat was between thirty and thirty-three and one-third per cent. greater than those fed upon cocoanut oil; that in other particulars the same things held true in the second experiment as in the first, with the difference

that the animals on the butter fat ration were in better condition than those upon the "Everyday" milk; that the animals fed upon the cocoanut oil made a growth, but that several of these animals were lost and had to be replaced; that after the experiment had been continued for three or four weeks three rats out of the eight were lost and had to be replaced; that no rats were lost on the butter fat ration; that the rats fed upon the butter fat ration were, judging from appearances only, probably a little healthier than the ones fed upon the cocoanut oil.

Thereupon counsel for defendants propounded the following question to the witness:

Q. Now, Professor, how far would you say the experiments on these rats would be a guide in determining the effect of the same experiments on infant life?

Thereupon plaintiffs, by their counsel, objected to the witness answering the above question on the ground that the witness is not qualified to give expert opinions upon the subject; and in response to questions propounded by the court upon this objection, the witness testified that he is not qualified to testify as to diseases, but that he thought he could speak with accuracy as to the nutritional side of it; that he has had no experience with infant life, and that the only thing that he can say is that the experiments on animals are used as a guide with the infant; that when it comes to dealing with the child itself the witness has had no experience whatever; that it is generally considered that the same would hold true, or the same result would be obtained, in feeding human beings as in feeding the lower animals, and that the witness bases this statement upon the fact that the same constituents are essential for the support and development of growth in the human that are essential in the animal body.

Thereupon the court ruled that the witness was qualified to answer the question objected to, to which ruling of the court plaintiffs, by their counsel, then and there duly excepted.

Thereupon counsel for defendants stated that the witness had answered the question in the course of his examination to test his qualification, and no further answer was given by the witness.

Thereupon defendants, by their counsel, propounded the following question to the witness:

Q. Now, Professor, I will ask you to state what in your opinion would be the result if an infant were fed exclusively on the product known as Hebe?

Thereupon plaintiffs, through their counsel, objected to the witness answering the above question, and the court ruled that the witness had not established sufficient qualification to answer said question, to which ruling of the court defendants, by their counsel, then and there duly excepted.

Thereupon, defendants, by their counsel, propounded the following question to the witness:

Q. You may state what, in your opinion, would be the result if a rat such as you have described were fed continuously on the product known as Hebe.

Thereupon plaintiffs, by their counsel, objected to the witness answering the above question, and the court ruled that the witness had not shown sufficient qualifications to permit him to answer said question, to which ruling of the court defendants, by their counsel, then and there duly excepted.

The witness further testified that he had carried on experiments with butter fat and other fats; that he is familiar with the literature upon the subject of other fats in their relation to butter fat.

Thereupon defendants, through their counsel, propounded the following question to the witness:

Q. I will ask you to state as the result of your investigations whether any vegetable oil has ever been discovered which contains the nutritive and growth-producing qualities of butter fat.

Thereupon plaintiffs, through their counsel, objected to the witness answering the above question, on the ground that he had not shown sufficient qualifications; but the court overruled said objection, to which ruling of the court plaintiffs, by their counsel, then and there duly excepted. Thereupon the witness gave the following answer:

A. In my looking up the literature on the subject, I have not found any vegetable oil that will equal butter fat in producing so-called vitamins, or growth producers.

On cross-examination the witness testified that in the first experiment conducted with Hebe and "Everyday" milk there were twelve rats in the "Hebe" group and ten rats in the "Everyday" group; that this experiment was conducted from the first day of June, 1916, over a period of eight weeks to the middle of August, 1916; that one of the "Everyday" rats died, and five of the "Hebe" rats died; that the average gain made by the Hebe rats was about forty grammes; that he has not the data at hand to show the growth of each individual

specimen; that each rat was in a cage by himself; that the witness is unable to say how much Hebe was consumed each day by each rat; neither can he tell as to the amount of "Everyday" milk consumed by each rat; that no data was kept as to the amount; that the data only shows the date that they were fed; that the rats were fed from a pan which was filled at regular intervals; that these pans were practically the same size and were kept full so as to keep food before the rats all the time; that the witness cannot tell at all how much of the Hebe any one of these animals consumed during any different space of time as compared with the others, but that the food was kept before them constantly; that no account was kept of the weight of the food put into the several cages; that the witness has no opinion at all as to the amount that any of these rats consumed during any period of time; that when the pans were filled they were not always empty; sometimes they would be empty, and sometimes not; that no attempt was made to measure the total amount of Hebe that was put before any one specimen; neither was any attempt made to measure the amount of "Everyday" that was fed to any separate specimen under investigation; that the difference in weights in these different specimens might vary according to the amount of food which they actually ate, but inasmuch as the food was kept before them constantly they had a chance to eat all that they wanted; that there was no means of knowing the attitude of the separate rats towards the food; that the witness did not notice any difference in this respect between the Hebe rats and the "Everyday" rats; that if the same amount was not consumed by the one set as by the other it would reflect upon the result; that precaution was taken to prevent the food from getting sour by placing forty per cent of cane sugar to each milk product to preserve it, and therefore there was very little trouble with spoilt milk; that every time Hebe was fed to the rats a new can was opened; that in some cases there was a residue left in the pans when the new supply was put in and no one tasted this residue to see if it was sour; but that if it was sour its appearance would show this; that the pans were washed twice a week, so for three days at a time new supply was added without removing any residue which might be in the pans, and so it was possible that some of the milk put into the pan on the first day would be there on the fourth day; that the witness does not know what killed the rat that was eating the "Everyday" brand of milk; that no post-mortem was made of

any of the rats that died, and that witness does not know what caused the death of any of them; that young white rats are generally healthy; that five of the "Hebe" rats died, and this is a higher rate of mortality than would be expected at the normal rate; that he does not know what the death rate is among white rats; that the rat that died on the cocoanut oil diet just gradually began to show less activity and for a while the weight would start down, and then in about three weeks they would be dead; that he does not know the real ailment of which the rat died, but took it for granted that it was the nutrition of the diet upon which it was fed; that no examinations of these specimens were made before the experiment began to really ascertain the relative state of health of the subjects, except from appearance; that the witness does not really know but that some of the five rats that died while being fed on Hebe might have been diseased when the experiments started, but that he hardly thinks they were as they were apparently the same from appearance; that he would not say all the rats were of the same litter, but that they were about the same size and age; that he does not know whether they were of the same litter or not; that the witness doubts whether there would be any difference in vitality of rats from different litters; that he took as nearly the same kinds of rats by just picking them up as he caught them; that it would have been impossible under the system of obtaining these animals to have gotten them all from the same litter; that such animals are subject to pneumonia, but that would occur in one case the same as in another; that the witness does not think that the experiment was started with any sick animals in either case, but bases this opinion upon the general appearance of the animals only; that no tubercular tests were made; that he is not qualified to testify as to whether such animals are subject to tuberculosis.

Witness further testified that he had read extracts from the experiments conducted by the Department of Agriculture of the United States upon vegetable oils; that he is not doubting these experiments; that the thoroughness with which vegetable oil is assimilated is not the only essential thing in considering nutritive value of the fat; neither is the caloric or the energy value of a fat the only thing that is necessary in considering the nutritive value; that certain animal fats contain vitamins, or growth promoters, while vegetable fats up to the present time do not; that in speaking of

vitamines the witness is basing his testimony entirely upon the literature and work of others.

Witness further testified that practically all of his time during the last two years has been spent in research work, and experimenting with white rats with reference to ascertaining the nutritious value of different foods; that in this particular the witness has experimented with approximately two hundred and fifteen rats; that the experiments with reference to Hebe and "Everyday" milk were carried out with the same attention as is given to other experiments as to feeding and as to selecting the animals; that these parasites are probably bacterial infection, but that the witness is not qualified to say positively; that there were four or five specimens in the Hebe group that developed this parasitical infection, and one or two in the "Everyday" group; that the witness does not know whether this infection is catching; that the animals were not allowed to associate with each other, the different animals being separated by blotter partitions; that these animals could develop infection without having infection when placed in the experiment; that these bacteria will come from the air, but that the witness cannot be sure of the source of the bacteria and is not prepared to testify as to the source of the bacteria; that the witness has no means of knowing what the growth on the different animals was.

On the following day (May 15, 1917) the witness was recalled for further cross-examination, having in the meantime collected the data upon the different experiments, and testified from said data substantially as shown by the schedules submitted below:

TABULATED STATEMENT BY PROF. HUTCHINSON

EXPERIMENT I.

Comparison of Butter Fat and Coccoanut Oil.

Weights expressed in grams

Series I.

Butter Fat. June 4 to August 9, 1916

Animal No.	Wt. Beginning	Wt. Ending	Gain
1	65 gms	237 gms	172 gms
2	58	180	122
3	50	95	45
4*	40	Died June 9*	
Average (excluding 1 dead)			
	58	171	113

*Note: Replaced by another animal June 9, which died June 11, so excluded.

Cocoanut Oil. May 30 to Aug. 9, 1916

Animal No.	Wt. Beginning	Wt. Ending	Gain
1*	60 gms	Died June 1	
2	50	177 gms	127 gms
3	40	100	60
4	39	80	41

Average (excluding 1 dead) 43 119 76

*Note: Replaced June 4 by animal weighing 70 grams which gained 65 grams weighing 135 gms. on Aug. 9.
Series II.

Butter Fat. Sept. 30, 1916, to April 18, 1917

Animal No.	Wt. Beginning	Wt. Ending	Gain
1*	60 gms	Died Nov. 19**	
2*	48	Died Oct. 7**	

Replaced*

1 Nov. 28	87	176	79 gms
2 Oct. 7	30	Died Nov. 19**	

**Rancid Ration.

Cocoanut Oil. Sept. 30, 1916, to April 18, 1917

Animal No.	Wt. Beginning	Wt. Ending	Gain
1	67 gms	Died Mar. 20	
2	50	140 gms	90 gms
3	55	Died Feb. 20	
4	52	Died Apr. 3	

Note: Mortality so high in this series that no conclusions could be drawn.

EXPERIMENT II.

Comparison of Evaporated Milk (every day) and Hebe Series I.

Condensed Milk. May 31, to Aug. 9, 1916

Animal No.	Wt. Beginning	Wt. Ending	Gain
1	45 gms	115 gms	70 gms
2	32	70	38
3	33	87	54
4	44	82	38
5	63	115	52
Average (5)	44	94	50

Hebe. May 31 to Aug. 9, 1916

Animal No.	Wt. Beginning	Wt. Ending	Gain
1	35 gms	68 gms	33 gms
2	30	80	50
3	37	55	18
4	41	80	39
Average (4)	36	71	35

Series II.

Condensed Milk. Sept. 30, 1916, to Apr. 18, 1917			
Animal No.	Wt. Beginning	Wt. Ending	Gain
1	52 gms.	119 gms.	67 gms.
2	55	127	72
3	29	Died Jan. 13.	
4	34	Escaped Nov. —	
4 (Replaced Nov. 7 by partly grown rat)	89	Wt. 66 gms.	
		117	

Average (2, excluding 1 died, 1 escaped and 1 partly grown):

Hebe. Sept. 30, 1916, to Apr. 30, 1917			
Animal No.	Wt. Beginning	Wt. Ending	Gain
1*	49 gms.	Died Oct. 17*	
2	58	140	82
3*	34	Died Oct. 13	
4*	50	Died Oct. 7	
1 replaced Oct. 7	32	94	62
3 replaced Nov. 7	80	160	80
4 replaced Nov. 7	37	115	78
Average (4) excluding three dead	52	127	75

*Note: No. 3 was first replaced by a wild mouse which lived only three days and was then replaced by a white rat.

The witness further submitted certain literature described in the record as follows: "The Necessity of Lipins in the Diet During Growth," appearing on page 167 of the Journal of Biological Chemistry No. 15, 1913. Also an article appearing in the same journal entitled "The Relation of Growth to the Chemical Constituents of the Diet," by Osborne & Mendel, appearing on page 301 of the same volume. Also article entitled "The Nature of the Dietary Deficiencies in Rice" appearing on page 181 of the Journal of Biological Chemistry, Volume 23, 1915. Also article entitled "The Rate of Elimination of Nitrogen as Influenced by Diet Factors. The Influence of Carbohydrates and Fats in the Diet," by LaFayette B. Mendel and Robert C. Lewis of Yale University, appearing on pages 19 to 53 in the Journal of Biological Chemistry, Volume 16, 1913-14.

The witness further testified that these publications are recognized as authority among men educated along these lines, and are really the main publication of Biological Chemistry in this country.

John F. Lyman,

called as a witness in behalf of the defendants, being

duly sworn, testified that he is 36 years of age and that his occupation is professor of Agricultural Chemistry in the Ohio State University; that he has the degree of Doctor of Medicine; that he has been in the State University since 1909, first as associate professor, and for the last three years as professor; that he has taken the degree of Bachelor of Science at the Massachusetts Agricultural College, the degree of Doctor of Philosophy at Yale University, and at the latter university studied in the laboratory of physiological chemistry under the direction of Professor LaFayette B. Mendel; that the witness' principal office in his entire work has been that relating to what might be called Alimentation, or Dietetics and the use and application of different food substances to supply the human body with the necessary sustenance; that during the last year he has spent his entire time in investigating certain cases of fat metabolism under the direction of Dr. LaFayette B. Mendel.

The witness further testified that it is a fact that cocoanut oil, like butter fat, is a mixture of glyceroids; that cocoanut oil is a purer fat even than butter fat in the same sense that granulated sugar is a purer article than maple sugar, because maple sugar contains certain impurities which give it its flavor and makes it more appetizing; that these impurities are substances which are not ordinarily regarded as constituents of sugar, and come from the sap of the maple tree; that in the same way as regards butter fat there are substances in it, probably a small quantity, which are not glyceroids but which are important substances and must not be overlooked because in dietetics these substances present in a small amount are quite important; that these substances are beneficial in nutrition; that back in 1909 when the witness first came to the Ohio State University his interest was aroused in the question as to whether an animal could live on fat-free diet; that he planned some experiments which were conducted by one of the students in the graduate school under his direction; that these experiments were conducted upon mice, the food of these mice being carefully extracted with solvents which removed all of the fat and in addition removed all of the substances which were soluble in the solvents used, namely, alcohol and ether; that these experiments were continued relatively a short time, approximately two months, and were brought to a close by reason of the fact that the student who was doing the work resigned from the university to take a position in the United States Department of Agriculture at Washing-

ton; that the results which he obtained, however, were quite striking; that mice soon died when fed this fat-free ration.

The witness further testified that a little later there appeared an article in the "Biochemische Zeitschrift" by Wilhelm Stepp in Volume 22 of this publication in 1909, at page 452; that the experiments conducted by Mr. Stepp were similar to the one which the witness had conducted; that Mr. Stepp found that mice fed bread which had been extracted with alcohol and ether soon died in every case; that Mr. Stepp divided the bread into two portions, one portion of which he extracted with alcohol, and the mice fed upon this extract bread died; but when he put the two substances together again so that he had the original article, he found that the animal thrived just as when fed the original bread; that in a later article published in the same journal, Professor Stepp published further results of his studies in which he had found that the substance which he had extracted and which was necessary for life, was rather of a subtle substance although he could not locate it exactly, but believed that it was not a glycerid; in other words, not an ordinary fat, but something else; that a short time after this in 1913, in the Journal of Biological Chemistry published in this country under the auspices of the Rockefeller Institute, there appeared two articles which further continued this same investigation of Stepp's; that Dr. McCollum of the Wisconsin Experiment Station verified the observations of Stepp with rats fed on a fat-free diet plus a relatively pure glyceride such as lard cannot thrive and grow properly, but when fed the same diet with the exception that the lard is replaced with butter fat, or the fat from the yolk of an egg, then they do thrive normally and make normal growth and reach maturity; that a few months after the appearance of the paper by McCollum the experiments were verified in an article published in the Journal of Biological Chemistry, by Dr. T. B. Osborne and Dr. LaFayette B. Mendel of Yale University, and these latter gentlemen added to the list of fats which contain this growth-promoting substance cod liver oil, an animal fat, and they also found that almond oil, a vegetable oil, is lacking in the substance and resembles lard in its failure to properly support growth.

Witness further testified that he observed only the beginning of the experiment conducted by Professor Hutchinson; that he did not see the experiments when they were concluded.

Witness further testified that so far as he is aware from a study of the literature no vegetable oil has been discovered which has the constituents that supply the nutritive properties that exist in butter fats; that in this particular line of dietetics the witness would say that Dr. E. B. McCollum of the Wisconsin Experiment Station is the leading authority.

On cross-examination the witness testified that he had examined the bulletins of the Department of Agriculture as to the digestibility of vegetable fats; that the data contained in these bulletins is absolutely reliable; that the question of the utilization or digestibility is somewhat different from the question of the presence of these growth-promoting substances in fats; that it is probably true that the vegetable oils are slightly better utilized than the harder fats; that the chief value of fats in nutrition of adults is that they furnish energy which the body requires to perform its work; that the statement on page 3 of Volume 469 to the effect that the adult diet which contains sufficient quantities of fat and carbohydrates to insure it the required amount of energy as well as a sufficient quantity of proteins to supply the necessary nitrogen for growth and repair of the body, also mineral matter for growth and other bodily needs and vitamins or similar bodies required render the diet adequate for maintenance, is correct and is the usual statement as to the needs of the body.

The witness then read the following comparisons as given on page 7, showing the caloric values of vegetable oils as compared with butter:

“Energy furnished by one pound of common fatty foods. Standard for comparison, 1000 calories:

Butter	3490 calories
Bacon	2835 calories
Lard	4080 calories
Vegetable fats	4080 calories”

Witness further testified that vegetable fat has somewhat more caloric value than butter fat, about 600 calories more than butter, but it must be remembered that butter is twenty per cent. water; that caloric is a unit of heat and caloric value represents the heat value of a food; that the energy of the foodstuffs is used in the body to maintain the body temperature and to supply the body with energy to do work, or it may be stored temporarily in the body in the form of fat; that as to the experiment appearing upon pages 10, 11, 12 and 13 of Bulletin No. 505 of the Bureau of Chemistry of the United States reading as follows: “In Experiment No.

224, with subject O. E. S., a relatively large amount of fat, 131 grams per day, was even more completely assimilated, and as evidenced by the report produced no abnormally alimentary symptoms. In fact, no one of the subjects reported any laxative condition." The witness would say that this experiment indicated a high utilization, good digestibility, and good absorption of the material which indicates that the food is well used in the body to produce strength or heat; that the fats do not supply the material for growth in the ordinary sense, except as they supply these growth-promoters or vitamins; that a food may be well assimilated in the development of energy and strength, but when it comes to growth no growth is attributable to the fats unless they are butter fats; that the experiments as to these growth promoters are still in an experimental stage and have not yet reached the extent of being able to say what this growth-promoting substance is; that these growth-promoters have never been found in any vegetable oil, but have been found in butter fat and the fat of the egg yolk and cod liver oil.

Thereupon counsel for plaintiffs asked the witness the following question:

Q. Do you find any other ingredient in food outside of fat that produces growth?

A. A growth, of course—we have to recognize that growth is the result of complete nutrition. Growth may be stopped as the result of cutting off of any one of a number of things, as these substances found in fats necessary for growth are only one of the essentials for growth. There are other things which are also essential, but growth may be limited or stopped by the lack of any one; proteins, for example, are necessary. If the diet does not contain proteins an animal cannot grow. If the diet does not contain the proper minerals, lime, iron, and so on, an animal will not grow. If the diet does not contain the proper growth-promoting substances which have been found in the fats, the animal does not grow; so that it is difficult to say that growth is the result of any one thing in the diet. It is the result of complete nutrition. Everything must be present which is required.

Thereupon Judge Sater asked the witness the following question:

Q. Do I understand you to say that there are no growth-producing elements in a vegetable oil?

A. A number of studies have been made up to the present time on vegetable oils—

Q. I am speaking now including such as cocoanut oil.

A. Yes. It would be stretching the point to say that these vegetable oils were of no value in growth. They may be of some value, but they do not contain a certain substance which is essential to growth; that is, if the fat of the diet is limited to a vegetable oil, as far as we know at the present time there can be no growth; or I would not say it exactly that way—growth will be stunted and limited to a shorter period, eventually will cease with the animal in an immature state.

The witness further testified that after the results of Stepp were published the question of growth on a fat-free diet was investigated by Dr. Mendel at Yale, who published an article about 1910 in the *Journal of Biological Chemistry* in which he came to the opposite conclusion from Stepp, in that Mendel found that growth was possible on a fat-free diet, but after a fuller period of experimentation Mendel found that fats, or the substances which are present in certain fats, the growth-promoting substances, must be present.

The witness further testified that the following statement, appearing upon page 13, Bulletin No. 505 of the United States Department of Agriculture, dated February 13, 1917, "The protein and carbohydrates were 64.5 per cent. and 96.7 per cent. available to the body, values which compare favorably with the thoroughness of digestion of these constituents usually found in similar tests. It may be reasonably concluded on the basis of these results that a cocoanut oil is suited to serve satisfactorily for food purposes" is correct, and that he would not deny that cocoanut oil is satisfactory in certain cases; and he further admitted that the following statement appearing in the same bulletin is correct: "These values indicate that the vegetable fats studied, with the exception of cocoanut butter, have for all practical purposes the same digestibility and are utilized as completely as the animal fats."

Witness further stated that the white rat is probably better suited for experimental purposes because the diet of the rat is similar to the diet of mankind, also the rat is a parasitic animal and thrives best on the scrapings from the table; furthermore white rats are very easily obtained; are small and easily handled and can be fed foodstuffs which are expensive and hard to prepare, because they do not require a great deal of food per day; furthermore the animal comes to maturity quickly and completes its life cycle so you get a whole generation in a few months; that the witness does not know the aver-

age life of a rat, but has known a rat to live two years; that after all the human being is the real test, although as far as experimentation work has been done the witness does not know of any experiments which show that findings obtained from the lower animals have gone astray on mankind.

Witness further testified concerning the experiments conducted by Professor Hutchinson from September 30 to April 18 on Hebe, rat No. 1, which died on October 7, ought to be eliminated because it cannot be said that the diet killed the rat, and that rat No. 4, which died on October 7, should be eliminated also; that also the rat which lived only 13 days ought to be eliminated.

Dr. E. V. McCollum,

called as a witness on behalf of defendants, being duly sworn, testified that he resides at Madison, Wisconsin, and holds the position of Professor of Agricultural Chemistry in the University of Wisconsin; that he took his undergraduate work in the Kansas University and received the degrees of Bachelor of Arts and then Master of Arts in 1906; the degree of Doctor of Philosophy from Yale University, after which he remained there one year and studied physiological chemistry further; that he has held a full professorship in Wisconsin University for four years, and has been in charge of agricultural chemistry in various ranks for ten years; that he has given practically all of his time for ten years in making experiments on animal life of the effects of food products; that when he took up the study of nutrition in 1907 there had been so little progress as the result of a half a century of effort by medical men that he had hesitated to enter upon this work as a life work; that there was just one thing that led him to make a decision to enter this work, which was, that the text books of ten years ago, enumerated as the essential factors of an adequate diet proteins, carbohydrates, fats, and inorganic salts and water; that he was well aware in 1907 that experiments in Sweden, in Germany and in England were being carried out by well known physiologists in which efforts had been made to carefully purify proteins, carbohydrates, starches, sugars, and fats, mixtures of salts of various kinds and to feed these mixtures to young animals in an effort to properly nourish those animals on such diets; but these experiments in every case failed from the beginning of the feeding until death ensued; that there was no explanation in 1907 as to why such failure resulted; that all the ingredients which the text books on nutrition of that day enumerated as the essen-

tial things in a diet were there; that these diets were digestible in all their ingredients, and yet failure was nearly as rapid on such diets as if the animal had no food; that it was particularly with a view to finding out the causes of these results by foreign investigators that the witness took up this work ten years ago; that he was the first in this country to attempt to repeat such experiments with purified foodstuffs carefully prepared so as to contain everything which the expert dietitians of the day said were essential chemical things in a diet; that his results agreed absolutely with those of the foreign investigators; that the question then arose as to the cause of this failure; that if a mixture of purified foodstuffs consisting of the proteins from milk, carbohydrates, such as starch and various sugars, and a fat such as olive oil, or other plant oil and inorganic salts closely imitating the content of each ingredient of an inorganic nature in milk a food which makes animals grow and thrive is fed to some little animal it will be observed that the animal loses weight from the day you put them on that diet until death ensues; that the witness has tried this experiment hundreds of times; that if this mixture already described has incorporated in it five per cent. of butter fat the animals will fail just as they did before the butter fat was put in; that if this mixture containing five per cent. of butter fat is mixed with a surprisingly small amount of the water extract, or alcohol extract of almost any natural food such as a grain, a seed, a leaf, a tuber, or fruit, and the mixture is fed to an animal he thrives throughout life and his growth will be at the normal rate; that if this water extract or alcohol extract be put into the mixture, but the butter fat left out and some plant oil substituted for the butter fat, animals fed upon this sort of a mixture will be no better off than they would be without the alcoholic extract; that the butter fat itself supplies some, but it is not the only thing and is still inadequate chemically; that both the butter fat and the alcoholic extract or water extract must be present; that there are two heat substances or growth substances the chemical nature of which is not known, which must be in the diet before growth and prolonged well being will result; that you can put in your extract, leave out the butter fat, and the experiment is a failure; that you can put in the butter fat and leave out the extract and again they will not grow; that the witness was the first to make these observations, and after repeatedly verifying same the results were published in 1912 in Volume 15 of the Jour-

nal of Biological Chemistry, at page 167; that six months later in Volume 16 of the same journal, page 423, Professors Osborne and Mendel completely verified the witness' observations on butter fat; that the witness has made experiments as above with oil from wheat, oil from corn, from oats, from barley, from rice, from sunflower seed, from hemp seed, from peanut, from almond, from olive, from cotton seed, from flax seed, and others, but has not made such experiments with cocoanut oil because witness finally lost faith in the value of plant oils in general as a source of this unknown; that he has conducted experiments with farm pigs, guinea pigs, chickens, and cattle, and has reached the conclusion as the result of approximately 3000 carefully conducted feeding experiments that the chemical requirements of all the higher organized animals for nutrition are practically, if not quite, identical; that practically the same results as to growing can be obtained by employing the fats of the yolk of the egg and by cod liver oil or the fats extracted from a kidney, freed from vegetable fat by means of fat solvents; but that in no instance can this unknown substance contained in butter fat be obtained from plant oil so far as the witness has been able to find out; that the witness would not say without experiment that cocoanut oil has not the growth promoting properties of animal fat, but can only reason from analogy with other plant oils in that respect; that the witness has made numerous efforts in the past few years to make a chemical separation of this unknown substance which butter fat contains; but has not succeeded in doing so, except to determine that it is not a fat in itself and is not one of the fatty acids, but is something of a totally unknown nature that is simply associated with these fats.

That this is one of the things that witness did; butter fat is carefully converted into glycerin and soap by the action of an alkali under such conditions that water does not come in contact with the system—this is what the witness did: Instead of dissolving the fats in a watery solution of an alkali to make soap, witness dissolved the fats in strong alcohol and chloric ether. Chloric ether is a light, volatile, mobile oil, similar to gasoline. If witness would put an alcoholic solution of potassium hydroxide, potash, into that, he would have a solution which, on standing for a time, would convert the butter fat over into glycerins and soap; that all the acids which are in butter fat combine with glycerins to form these volatile fatty acids, and all those fatty acids have been the volatile ones and all have been converted into the

basic salts in that way and then they are no longer volatile, because then they are in the form of salts; soaps are not volatile, and all these volatile fatty acids may be put into soaps; when the resultant soap mixture made from butter fat is dissolved in water, there is no fat there, the fats have all been decomposed into glycerins and fatty acids and the fatty acids have gone into the combination with the potash to form soaps; witness has taken the soap solution and put it into a certain amount of olive oil, pure olive oil, which had been tested very thoroughly, and found the olive oil to be without this growth promoting substance; if the same olive oil is agitated thoroughly with this soap solution, and let it come into contact with the soap solution very thoroughly, and then separate that olive oil with a solvent such as ether, and evaporate the ether, and you get the olive oil back again and out in a dish, that olive oil will make them grow in precisely the way that butter fat did before it was decomposed into soaps. The substance that induces the growth is not a fat itself, neither is it one of the fatty acids which result from the decomposition of the fats; but it is something of a totally unknown nature that is simply associated with these fats, because it is soluble in fats; that this unknown element could not be present in the form of a soap; that the substance in question, the physiologically important substance, is in solution in the fat; the witness holds this view as a result of considerable investigation. It is not itself a fat, it is of unknown nature, but we know it is not a fat, otherwise when we convert the fats of butter into soaps it would be converted also, and therefore would lose its value as a peculiar substance; that the difficulty is here: witness wishes to get the unknown substance out of the butter fat, but how shall it be done; that this is a difficult matter; that one way to proceed is to convert the butter fat into something having entirely different properties from the butter fat and therefore presumably, or possibly, unable to dissolve this unknown substance with which it was associated, and in this way after the soaps were made from the butter fat, we have the unknown thing with certain soaps and glycerins, but we know it was already with butter fat in the beginning; that it was a soluble thing in the butter fat, so we will substitute another fat which does not dissolve the soap nor the glycerins, shake the soap and glycerins with the new foreign fat, which did not possess this substance in the beginning, and owing to the solubility of that thing, it goes over into the new fat and thereafter we feed that

fat and demonstrate the presence of this unknown thing by the growth of the animals, knowing that over a certain period, a certain preliminary period, they did not grow having the same olive oil in the same amount of diet; that, in short, the olive oil takes up the unknown quantity from the soap, and possesses substantially, at any rate, the qualities of butter.

That the witness is thoroughly familiar with all of the literature in this field, and that there is not known to science today any vegetable fat which contains these growth promoting qualities of butter fat; that as to the gains made by the rats fed upon Hebe in Professor Hutchinson's experiments, the witness would say that skimmed milk would still retain a very appreciable amount of butter fat so that a little butter fat remains; and in the case of an extraordinarily vigorous animal it made a pretty good growth on such a diet over a period of several months, possibly four or five months; that the witness has repeatedly adjusted these diets so low in the butter fat factor, or so low in the water and alcohol soluble dietary factor, or by adjusting protein content so low that the animal would just make his normal curve of growth; but if 25 animals were reared on such a diet no young could be obtained; or if any young were obtained they would die within a day or so; that the witness would not say that butter fat is the thing above all things that makes a diet adequate, but it contains an indispensable thing which it is necessary to have so far as the witness' experience or the experience of others goes, and which is not found in plant fats.

The witness further testified that there is no difficulty about the isolation of the butyric acid fats in butter; that this acid has no function other than it is a source of energy; that reasoning from analogy with other experiments with numerous other plant oils, the witness would say that coconut oil does not contain the unknown factor notwithstanding coconut oil is the only vegetable oil that contains all of the volatile acids that butter fat contains except butyric acid.

Witness testified that he was in court when Dr. Lyman was on the stand, that he heard the questions put by Judge Hollister to Dr. Lyman, which was to account for the moderate amount of growth obtained on a mixture of skimmed milk powder and coconut oil. The witness testified that reasoning from analogy with other experiments, with numerous other experiments with numerous other plant oils, he had not found this unknown growth-promoting quantity; that he wishes to empha-

size that the confidence with which he speaks to the court is a confidence born of a far greater experience with nutrition experiments, carefully conducted than that of any other living human being. Witness testified that the percentage of those volatile acids in cocoanut oil is twenty-five per cent. of what they are in butter fat; that in butter fat, we start with the fact that the element of growth is in there somewhere; that in regard to its being in cocoanut oil, the witness says that when he came to examine the various seeds, such as the kernel of the corn, the oat and the wheat, barley, rye, etc., he found in all cases the seed is distinctly poor in its content of this substance which butter fat supplies; that the same is true of oranges, apples, pears and peaches and fruits generally; that these things have been carefully looked into, and they will not supply the animal in the amount he can consume, will not supply the butter fat factor; that the only place in the vegetable kingdom that you can obtain the butter fat to meet the needs of a young growing animal is in the leaves of the plant, and contrasting the leaf generally with the seed, witness testified that the seed consists of a tiny germ tip which, under appropriate conditions is capable of development into a little plantlet and becoming independent of the rest of the seed and growing into a plant; that the leaf presents a greater surface to the sun and air; that the leaf is the place where the plant takes in the carbon dioxide from the air and the energy from the sunlight and takes water and salt from the soil, and it makes proteins, carbohydrates and fats; in other words, the leaf is a physiologically very active thing. Witness stated that his belief, based on numerous experiments, is that the leaf is rich in this unknown thing which is in butter fat and the seed is very poor; that reasoning from analogy with the cocoanut oil, the latter is obtained from the fruit of a certain plant; the fruit consists of things other than the metabolizing cells of the leaf; that witness deemed it highly improbable as the result of a third of a life of experiments that cocoanut oil contained this unknown quantity found in butter fat; that witness would not characterize this unknown quantity as being embraced within the volatile fatty acids for the following reason: If we extract with a suitable solvent such as ether or chloroform, the fats out of a kidney of an animal, or the liver of an animal, free from visible fat, that there are no volatile fatty acids in there to anything like the extent found in butter fat, or even in cocoanut oil, and yet the growth-promoting properties

of those fats from the liver and the kidney are extraordinarily high, comparable in every respect with butter fat; that this is a matter not associated, in witness' judgment, with volatile fatty acids in any respect; that the fats of the yolk of the egg, for example, possess no such high volatile or fatty acids as does butter fat, and yet they are among the most effective of all food fats when it comes to inducing growth. The witness is confident in his belief that this quality of volatile or fatty acids does not necessarily go with the growth-promoting property in the slightest degree.

The witness further testified that in his judgment the unknown factor or growth-promoting property is not associated with volatile acids in any respect; that the witness cannot answer the question whether this unknown quantity appears in cocoanut oil.

The witness then presented a paper entitled "Hoard's Dairyman," a journal devoted to dairy farming, dated July 21, 1916, and to the introduction of this paper in evidence plaintiffs, by their counsel, then and there objected on the ground that an expert witness may identify articles of others that he relies upon and have them offered in evidence, but not his own; but the court ruled that said paper might be received subject to complainants' objection as aforesaid, to which ruling of the court complainants, by their counsel, then and there duly excepted.

Whereupon said article referred to was received in evidence, marked Defendants' Exhibit "B," and is in the words and figures following, to wit, being only the article in Hoard's Dairyman (hereto attached) headed "The Present Situation in Nutrition," by Dr. E. V. McCollum:

Defendants' Exhibit B.

The Present Situation in Nutrition.

Dr. E. V. McCollum, Wisconsin College of Agriculture.

In the universities and agricultural experiment stations there has for many years been expended a considerable amount of effort and money in the study of the problems relating to nutrition of animals. Considerable progress has been made, but the amount of progress has been small when compared with the amount of work that has been done and the amount of money which has been expended. The results have a value which entirely justify the cost. Certain rations have been found highly satisfactory in the production of growth, but unfortunately these rations are more expensive than certain other mixtures of foodstuffs which chemical analysis in-

icates should give good results, but which practical trials have shown to be unprofitable.

If one studies carefully the literature of the decade just passed, one must become convinced that progress has not been very rapid. Animal husbandrymen of wide experience have admitted to me that they believed that with the present methods of trying this or that concentrate versus another has taught us about all that it will ever teach. These men all keenly appreciate the fact that certain mixtures of foodstuffs promote the well being of animals, as shown by appearance, rate of growth, fertility, or productivity, in some way which we do not understand, and which cannot be predicted from the results of the most careful and searching chemical analysis. It is the appreciation of the fact that there are more subtle effects of feeding than can be gained in the present state of our knowledge by chemical studies which has led Evvard of Iowa, one of our most progressive animal husbandrymen, to try in an elaborate way the reliability of the instincts of farm animals as a guide to the proper selection of the most favorable combinations and proportions of food ingredients.

In this article I shall try to make clear the views of the present situation in nutrition which I hold as a result of a very considerable experience in feeding of small laboratory animals. I was led to select the rat as an experimental animal because it is small enough to make it possible to do a lot of chemical work on the things which are fed to it, and a complete knowledge of the constituents of the ration can be obtained. Obviously extensive separations of the naturally occurring foods into their constituent parts, as protein, fats, carbohydrates, inorganic elements, cannot be done when large animals are employed for experimental purposes.

Proteins of Various Plants not Equally Efficient.

In Bulletin No. 17 of the Wisconsin Experiment Station, satisfactory proof was for the first time brought forward to show that the chemical composition of the ration, as revealed by any methods of analysis at present known, gave no indication whatever as to whether the ration would be a satisfactory one for the nutrition of an animal. In the experiments described in this bulletin, we fed four lots of young heifers of 350 lbs. on rations containing the same content of protein and digestible nutrients, but one ration was made up wholly from the wheat plant, another from the corn plant, and another from the oat plant. A fourth lot received a ration made up of a mixture derived from all three plants in about

equivalent amounts. Very briefly the main results were as follows:

All lots grew at about normal rate, but after a few months it became easily observable that the wheat lot was not so well nourished as the others. This was most evident from the appearance of the coat. The corn and oat fed lots bred earlier than the wheat fed one, showing that the latter were depressed in some degree. The corn lot produced calves which were of normal size and full of vigor. The oat lot produced calves which were of about normal size but with very low vigor, while those from the wheat lot were about half as large as the normal calf at birth and were dead or ready to die when born. We set ourselves the task of finding out why there was so much difference in the nutritive value of these rations having the same chemical composition.

Purified Foodstuffs Do Not Support Life.

Before this time, a number of foreign chemists had tried to get young animals to grow on rations that were made up of mixtures of carefully purified proteins, carbohydrates, fats, and salt mixtures from the chemical laboratory. These salt mixtures must contain all the salts which are left as ash when the body of animal is burned, and include the potassium, sodium, calcium and magnesium salts of sulphuric, phosphoric, and hydrochloric acids. When such rations are fed the animals not only do not grow, but they will not live any great length of time, ordinarily not beyond two months. Now the essential thing to remember about this work is that the foodstuffs were highly purified.

If we take such a mixture of foodstuffs, which does not support an animal, and stir into it a small amount of egg yolk, say, for a pound of the ration, an ounce of egg yolk, and then feed this mixture to some more animals, they will grow satisfactorily. The same result would be obtained if we had put in an ounce of dried milk instead of the egg yolk. If we had put in this amount of wheat or corn, or even of meat, we should have been unable to make the animals grow or to remain in a healthy condition.

All Fats Not Alike.

Suppose now we take all the fat out of the egg yolk by extracting with some solvent which dissolves the fats, and then put into the mixture of purified foodstuffs the part of the yolk which is not fat, and then feed the mixture to a group of little rats. We find they will not grow. We can keep them for a month on this ration without any increase in weight, and then make them

grow by putting back the fats of the yolk which we had taken out. There is something about this which should make us stop and think a little. If we should have at hand a book on dietetics or on animal feeding and should turn to the part where fats are discussed, we would see the statement that fats are a concentrated source of energy which the animal stores in a time of liberal feeding which it can draw upon in a time of need as a source of heat or muscular work. We would read nothing about any influence of fats on growth.

Suppose at this point we make up a new batch of our mixture of purified foodstuffs, and adding to it the fat free part of an egg yolk, which addition we have determined will not make little rats grow. We now add to it a liberal amount of olive oil instead of egg fats and feed the resulting ration to some little rats. They will not grow. If we take away the olive oil or leave it in and add again the fats which we took out of the yolk, they will begin to grow the day we make this addition, and stop growing any day we take these fats out. We might try a whole series of experiments like the ones we have described and leaving out the egg fats, try cottonseed oil in one, lard or tallow in others, peanut oil or almond oil in others, and in all these experiments there would be no growth whatever. If, however, we had included one in which we put butterfat, we should find that this lot would grow just as did those which received egg fats. The fats from a kidney would induce growth and to some extent those from the muscles, but the vegetable fats and oils will not do so. The book on dietetics or feeding was all right when it was written, but it needs a new edition. We did not know until two years ago that there was something about certain fats which is indispensable to the young, growing animal and without which his nutrition must fail. The fats of milk and eggs and of certain organs are particularly rich in this substance and while it is found in the plant kingdom it is always in amounts too small to supply the needs of a rapidly growing animal, at least so far as we know at present.

The point which I wish to emphasize here is that we are not to speak of fats in our discussion of nutrition without recognizing that all fats are not of equal value to the animal during growth, because they have about the same energy value and are about equally well digested and absorbed. By the simple experiments I have described this is made clear. I wish also to point out that a thousand years of painstaking effort in the study

of nutrition problems by the regular procedure of the animal husbandryman, would never have disclosed this peculiar growth-promoting power of certain fats as contrasted with others. Here is a something which is indispensable for the growth or prolonged well-being of the young animal, and without which no amount of protein, palatability or digestibility will produce a ration which will suffice. Yet this wholly unsuspected substance would never have been discovered without experiments of the kind described above in which purified foodstuffs were employed instead of mixtures of naturally occurring ones.

Alfalfa Leaves as a Substitute.

It is obvious, then, that in making up a ration for a growing animal we must take into account this new factor as well as the hitherto considered constituents of the diet. We mentioned above egg yolk, milk, and animal organs as sources of this substance, and stated that wheat, and corn, and meat, with the exception of the organs of the animal, as not containing enough to supply the demands of the growing young. We have recently demonstrated that the grains above mentioned do contain a little of it, and that the wheat germ is especially rich in it. Alfalfa leaves are the best source of this unknown dietary constituent that we have yet found, but there is good reason to believe that the forage portion of the plant is in general a better source of it than the grains. The small amount of it which we find in grains is concentrated in the germ, and since this makes but a small per cent. of the entire kernel, the kernel itself is a poor source. This peculiar property of alfalfa leaves helps us to appreciate why young pigs grow so much better when given pasture along with grain feeding than they do when fed grain alone. We can also appreciate that variety along with careful attention to the proper chemical composition does not by any means assure us of success with a ration.

Why Milk Fat is Valuable.

The question has often been asked: If the body fat of the animal is so poor in this growth-promoting substance, and the young animal is not able to manufacture it from some other constituents of his foods, how is it that the milk of an animal is one of the very best sources of it? In my opinion the explanation is this: The milk producing female, having attained her growth, no longer has a very great need for this growth-promoting substance, and so does not use up the supply of it which exists in her food supply in a concentration too small to

meet the needs of the young. She concentrates the amount found in her food into her milk, thus producing a food for the young which is much richer in this constituent than was the mother's ration itself. The richness of the forage portion of the plant in this substance also accounts for the fact that the great milk producers are the herbivora, whose digestive tracts are so constructed that they can handle large quantities of forage. Such animals as the cow can in this way produce milk of good quality in respect to this substance, in amount sufficient to meet the needs of her young several times over, while such animals as the sow with much less capacity to consume and digest forage plants can produce no more milk than is essential for the nutrition of their own litters of young.

The question also arises: Is milk all of the same quality with respect to this growth-promoting substance which is present in so adequate amount in butterfat, or will a ration which may be adequate in all respects except for its content of this unknown substance lead to the production of milk of poor quality in its growth-promoting power? I am strongly inclined, as the result of a considerable number of experiments, to believe that this constituent can be put into the milk only as it is present in the food of the mother, and that milk can be produced from certain diets which is unsuited for the nutrition of the young and without the power to induce growth although it may have the normal amount of protein, fat, and milk sugar. Of course this means that butterfat of such milks would produce butter of low grade. It seems certain, however, that the average dairy ration, made up with a liberal amount of forage, or of hay, and of such a quality as to be palatable, will insure an adequate supply of the growth-promoting substance in the fat.

Butterfat vs. Oleomargarine.

I have been repeatedly asked if this story of the peculiar food properties of butterfat as contrasted with the body fats of animals is not to be construed as the funeral oration of the butter substitute. In the past the butter-substitute man has argued that one fat yields as much energy as does any other fat, and all fats are about equally well digested and absorbed, and that when he makes a product which is as palatable as butter, he has something just as good as butter in every respect, and at a great saving in expense.

My answer to this question is as follows: The butter substitute, containing a considerable amount of admixture of the body fats of the animals, is not equal in its

physiological properties to an equal amount of butter, although it may possess as much energy and equal digestibility. As an energy food it may be just as good as butter, but in the peculiar growth-promoting power we have been discussing, butter is lowered in value in so far as it is diluted with animal or vegetable fats. Among the ordinary human foodstuffs the sources of the unknown substance indispensable for growth are eggs, milk and meats. Meats do not furnish so much as do either eggs or milk. All other human foods either do not furnish this substance at all or contain entirely inadequate amounts of it. It is easily possible and practicable to give the young child what the needs of this substance in the form of milk and eggs, and still allow him to eat a butter substitute on his bread. At least I believe there is no doubt that this can be done. There are no substitutes, however, for these two kinds of foods for the growing young. The experience which I have had up to the present time in trying to determine the relative amount of the unknown substance contained in butterfat, which is necessary to maintain a grown animal as compared with the amount necessary to induce growth in the young, is still entirely too small to warrant drawing satisfactory conclusions, and I can only say tentatively that the amount required to maintain a grown animal is quite small in comparison.

Application to Growth of Farm Animals.

I have in this discussion emphasized the importance of the special property of certain facts as contrasted with others, because this factor in dietetics and animal production has up to very recently not been appreciated. It is in reality of the same relative importance as the other well recognized factors concerned in an adequate ration. None can be inadequate and success be attained in their use. It seems evident to me, however, that there are a great many substances to be found on farms in which this particular factor is the one which is determining the rate of growth of young animals, especially pigs. It is easy to compound rations which, if they contained more of this growth-promoting substance, would support growth at the maximum rate which, because they carry an inadequate amount of it, are causing the animals to grow about half as fast as they are capable of growing. It is this factor which is in a considerable degree responsible for the fine rate of growth which always follows the feeding of skim milk along with a grain ration. The value of meat scraps when added to such rations is like-

wise in great measure the result of the increase of the content of this substance.

In the next paper I shall discuss the importance of another substance of unknown chemical nature which we have found to be indispensable from the diet of both of the young and the adult. Fortunately, however, this one is much more widely distributed in vegetable products and less care and expense are necessary in order to provide animals with an adequate amount.

Thereupon witness identified another paper as one which he published some months ago, giving the results of experiments with a long list of vegetable oils. Plaintiffs, by their counsel, objected to the introduction of said paper in evidence on the ground that an expert witness may not identify his own articles so as to entitle such articles to be introduced in evidence; but the court ruled that said article might be received in evidence subject to plaintiffs' objection, to which ruling of the court plaintiffs, by their counsel, then and there duly excepted.

Thereupon the last named article was received in evidence, marked Defendants' Exhibit "C," and is in the words and figures following, to wit, being the entire exhibit hereto attached:

Defendants' Exhibit C.

Reprinted from The American Journal of Physiology, Vol. 41, No. 3, September, 1916.

The Distribution in Plants of the Fat Soluble A, the Dietary Essential of Butter Fat¹.

E. V. McCollum, N. Simmonds and W. Pitz.

From the Laboratory of Agricultural Chemistry of the Wisconsin Experiment Station.

Received for publication July 5, 1916.

In 1913 it was pointed out in a paper from this laboratory (1) that certain fats of animal origin contained a substance the nature of which is as yet unknown, which is essential for growth or for long continued maintenance of health in the rat. Olive oil and lard were shown not to possess this growth factor. Later Osborne and Mendel described experiments which fully confirm our observations and added cod liver oil to the list of growth promoting fats, and almond oil to the list of fats which exert no special influence on growth (2). It was a matter of great importance to determine whether this indispensable dietary factor which we have termed the fat soluble A, (3) is present in foods of vegetable origin or whether it is a specific product of the mammary gland in mammals and the ovary in birds elaborated for the

benefit of the suckling or of the embryo bird. We have for this reason examined various types of substances of plant origin, feeding these with rations so made up as to be wholly adequate when one of the growth promoting fats was included but inadequate when such fats were omitted. In the present paper we present the records of rats fed rations in which maize, cottonseed, linseed, olive, sunflowerseed, and soy bean oils respectively were the only source of the dietary factor supplied by butter fat.

All these have given results which make it clear that the fat soluble A is not found in fats and oils of plant origin so far as we have been able to discover. Owing to the importance of this fact, from the point of view of practical dietetics and animal production we desire to record these negative results for the more widely used plant oils.

One of the most interesting results of this investigation is the great difference in the effect on rats of consuming cottonseed oil which was prepared by extraction with ether, as compared with those fed a similar ration but with commercial bleached oil prepared by hot pressing. The former suffered distinct intoxication within a few weeks and showed rapid loss of weight (Chart 7, Lot 512) whereas the commercial sample could be fed at the same plane of intake with no signs of injury. (Chart 7-Lot 531.) This result serves to corroborate the observations of Withers and Carruth (4), that the toxic factor "Gossypol" is soluble in ether and is present in the fat prepared by the use of this solvent.

Among the other oils of plant origin which we have studied, wheat oil, linseed oil and hydrogenated cotton seed oil have shown definite but not severe toxic effects on young rats. This we have been able to demonstrate by employing as rations, with which the fats were fed, food mixtures so made up as to just admit of about normal growth for several months but so low in their content of the fat soluble A as to render the animals sensitive to any unfavorable factor which might be superimposed on it in their delicately adjusted condition. In this way we have made it possible to test for toxicity of low intensity which would never induce visible effects if present in a diet which was otherwise of good quality.

This principle should be carefully considered by those who would study the harmfulness or innocuousness of various substances which may occur in the diet (5). Any of the several factors which make up the satisfactory diet can be singled out as the one to serve as the

limiting factor to be so adjusted as to lower the resistance of the experimental animals.

In experiments in which the fat soluble A of the diet was supplied wholly by vegetable products it has been found that alfalfa leaves are an excellent source of this dietary factor, and that cabbage leaves also supply it. The cereal grains, while containing a small amount, are markedly inferior to alfalfa leaves in their content of this indispensable dietary factor.

The marked success which was reported by McCollum and Davis in restoring to health by the addition of corn, rats which had been brought to the threshold of death by a diet of supposedly approximately pure food-stuffs, should now be regarded in a new light because we have since learned of the tendency of lactose, which was a constituent of the earlier diets employed by us, to carry as impurities a sufficient amount of the unidentified dietary factors, fat soluble A and water soluble B, to supplement the content of these in any natural food, to a degree not to be ignored (6). Corn kernel fed with lactose led to improvement in the rats to a degree which corn alone could not induce (6). In the preceding paper we have described rations in which all of the fat soluble A was derived from 40 per cent alfalfa leaves, and reproduction was observed after the rats had made all their growth and had continued ten months on the diet. Corn, wheat, oats and probably other grains supply this factor but in amounts below the requirement of animals over extended periods of growth.

The superiority of the forage portion of the plant over the seed with respect to its content of the fat soluble A is of considerable interest when viewed in the light of the dietary habits of lower animals. Those which consume the forage rations grow successfully from generation to generation on a strictly vegetarian diet, while the seed eating animals, so far as we have been able to learn, normally vary their diet to a considerable degree by the addition of green leaves, worms, insects, etc. Certain combinations of seeds may however suffice for normal nutrition.

An observation of interest in the experiments reported here, is that the ether extracted residue of corn meal is more effective in causing a slow but long maintained upward trend of the curve of growth than is corn oil. Compare Chart 10, Lot 451, and Chart 3, Lot 630. The interesting point is that ether extraction of plant tissue does not remove the substances essential for growth which is contained in butter fat. The obvious working

hypothesis must for the present assume that the fat soluble A is in chemical union in the plant tissues, and in a complex which is not soluble in fat or in ether. In digestion and absorption it is set free and, being readily soluble in fats, thereafter accompanies the fats in the animal body. Owing to the large content of waxes, etc., extracted from plant leaves we have not been very successful in feeding ether extracts from these sources.

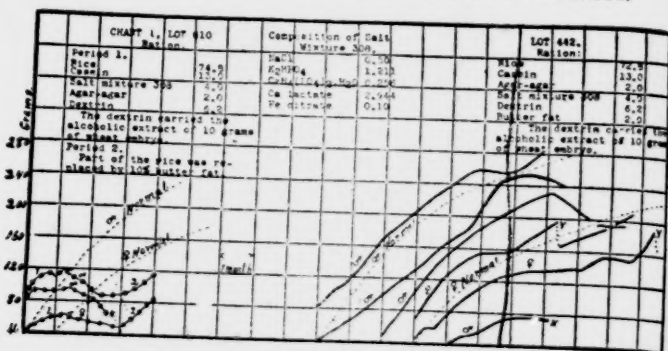


Chart 1. Lot 610 illustrates the behavior of rats fed a ration which is adequate in all respects except that it lacks one of the dietary essentials, the fat soluble A which is found in butter fat, egg yolk fat, ether extract of kidney, etc. We selected this diet as one to which the more important vegetable fats could be added in order to test for the distribution of this substance in fats of plant origin. The ration fed to this lot of rats becomes entirely adequate to support growth to maturity at the normal rate when butter fat is added. (See Chart 1, Lot 442.) There was a prompt response with growth in period 2 when butter fat was introduced.

Lot 442. The ration fed these rats differs essentially from that employed in Lot 610, Chart 1, only in containing 2 per cent of butter fat. With the butter fat present, growth is complete; without it no growth can take place. Any fat of plant origin which contains the dietary factor supplied by the butter fat, should when incorporated with this ration, induce growth.

In this and the succeeding charts Y marks the birth of young.

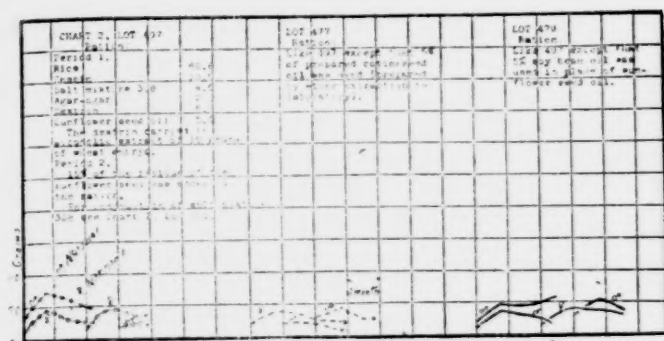


Chart 2. Lot 497 shows the failure of sunflower seed oil to promote growth when included in the ration employed in this series. With butter fat instead of sunflower seed oil normal growth would have resulted. (Compare Chart 1, Lot 442.)

Lot 447 likewise shows failure of rats fed 5 per cent of cotton seed oil prepared by ether extraction with a ration fully adequate to support growth except that it lacks the fat soluble A. These rats showed distinct signs of injury from the effects of eating even this small amount of cotton seed oil prepared by extraction in the laboratory, in contrast to commercial oil prepared by pressing and subsequent bleaching. The latter showed no toxic effects but failed to induce growth. (See Chart 4, Lot 447B.)

Lot 479 shows that soy bean oil does not have the growth promoting property possessed by certain fats of animal origin. (Compare Chart 1, Lot 442.)

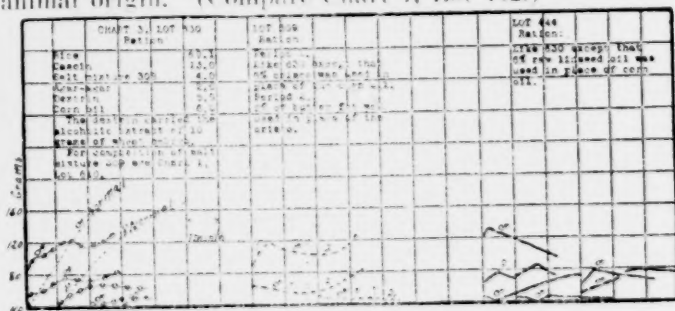


Chart 3. Lot 630 illustrates the inefficiency of corn oil to induce growth. The ration here employed is closely similar to that of Chart 1, Lot 442, except that 6 per cent of corn oil replaces 2 per cent. of butter fat. The corn oil employed in this ration was prepared by ether extraction in the laboratory.

Lot 609 shows the failure of a widely used commercial substitute for lard, Crisco, made by hydrogenating cotton seed oil, to induce growth in young rats. On replacing the Crisco by butter fat in the second period growth proceeded.

Lot 444, shows that 6 per cent of linseed oil fails to induce growth. We have been unable to find a single instance where the isolated fats and oils of plant origin promote growth in the manner that certain animal fats do. The rats in this group appeared very rough coated, emaciated and feeble and were in a much worse condition than those of Chart 1, Lot 610, whose ration was closely similar but contained dextrin instead of linseed oil. Linseed oil is somewhat detrimental to the rat. This does not indicate the absence of the fat soluble A from plants. We have already pointed out that alfalfa, wheat germ, maize kernel and cabbage furnish a considerable amount of this substance.

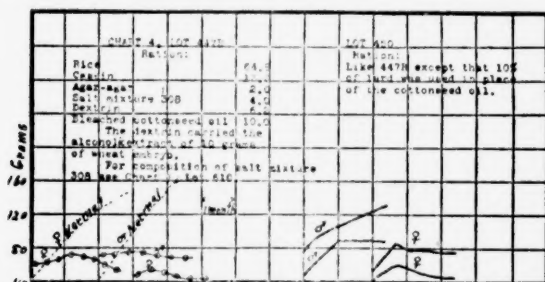


Chart 4. Lot 447B shows the absence of the dietary essential the fat soluble A from bleached commercial cotton seed oil. Even 10 per cent of the latter fails to induce appreciable growth.

Lot 450 serves to confirm our earlier observations on lard, which showed it to possess very little of the growth promoting properties of butter fat, i. e., the fat soluble A. In our early work the content of the water soluble B was dependent on its presence as an impurity in the lactose. In the present series of experiments an abundance of this factor, was added in the alcoholic extract of wheat embryo.

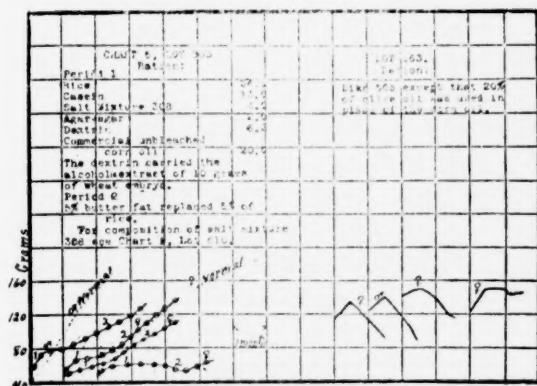


Chart 5. Lot 565. The rats in this group received 20 per cent of commercial unbleached corn oil. Even this amount does not suffice to furnish an adequate amount of the fat soluble A to induce growth.

Lot 563. In 1913 it was first shown in a paper from this laboratory that butter fat possessed a certain growth promoting property and that olive oil did not, (1) We later learned that the success of these early experiments turned upon the degree of purity of the lactose contained in the rations. The two dietary essentials, the fat soluble A and the water soluble B, at that time unappreciated, were carried by the lactose as impurities and were present in minimal amounts which could suffice to induce growth. Since pure lactose would cause failure to grow even when butter fat was included in the ration, it seemed desirable to repeat the test on olive oil with the rations known to be wholly adequate with respect to all factors except for the dietary A. The curves shown here confirm our earlier results in indicating the absence of the fat soluble A from olive oil.

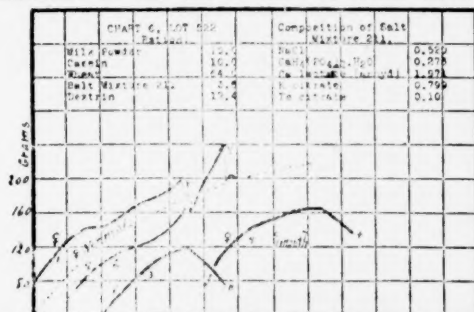


Chart 6. Lot 522, illustrates the curves of growth of

four rats fed a ration which contained barely enough of the fat soluble A to induce growth at the normal rate during a period of three to five months. Number 1 produced two litters of young but did not rear any of them. After the loss of the second litter she did not appear to be in a healthy condition, so she was discarded. Number 2 died just before producing a litter of young. The remaining two suddenly declined and died after having grown fairly well for a time. With butter fat added (5 per cent) this is one of the most successful rations we have employed for inducing repeated reproduction and rearing of the young. (8)

This ration was therefore employed to test the growth promoting values of certain vegetable oils since a relatively small additional content of the fat soluble A should supplement the amount already in the ration and prevent failure. We look upon the experiments with this ration as somewhat more delicate, tests for this dietary factor than were those with the ration described in Chart 1.

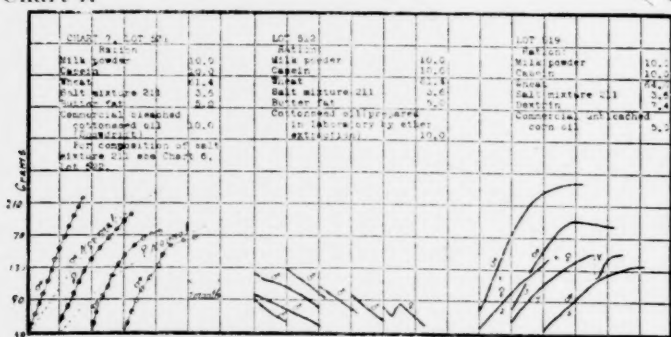


Chart 7. Lot 531. This lot was given the ration described in chart 6 but with the addition of butter fat together with 10 per cent of bleached commercial cotton seed oil to see whether the latter contained enough of a toxic constituent to interfere with growth. There is no evidence that this content of refined cotton seed oil was detrimental. According to the manufacturers the oil was prepared by pressing.

Lot 512, shows the injurious effect of feeding the same ration as was given Lot 531 but employing instead of refined cotton seed oil a preparation made by extracting cotton seed with ether in the laboratory. This result is in harmony with those of Withers and Carruth in showing the extraction of the toxic principle of cotton seed "gossypol" by ethyl ether. (4) (Compare Chart 2, Lot 477.)

Lot 519. Received a ration like that of Chart 6, Lot 522, except that 5 per cent of commercial unbleached corn oil was included instead of its equivalent of dextrin. There was no evidence of improvement as a result of the content of corn oil. Number 2 died in parturition, number 4 produced a litter of young but destroyed them.

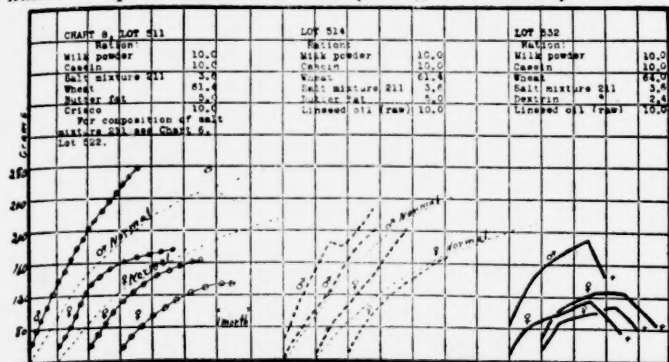


Chart 8. Lot 511. The ration of this lot was like that of Lot 522, Chart 6, but without butter fat added, and with 10 per cent of Crisco replacing an equivalent amount of dextrin. The appearance of these rats was distinctly inferior to that of Lot 522. Apparently the content of butter fat did not suffice to counteract a somewhat deleterious effect of the hydrogenated cotton seed oil. We have fed this food mixture with dextrin replacing the Crisco, and in all cases the animals were extremely sleek and well nourished (8 p. 642). Lot 511 on the other hand suffered from roughness of the skin, tail and ears and appeared to be very poorly nourished.

Lot 514 received a ration like the preceding one but with 10 per cent of raw linseed oil replacing Crisco. There were no definite signs of any ill effects resulting from the consumption of linseed oil. Chart 3 (compare Lot 444.) Linseed oil does cause injury in some degree, however, although its detrimental effects are not visible when the ration contains butter fat. When the butter fat was omitted from this food mixture the depressed growth and early failure of the rats was very pronounced as compared with the behavior of rats fed a similar ration but without the linseed oil. (Compare Lots 532 with 514 and Chart 6, Lot 522.)

Lot 532 shows that 10 per cent of raw linseed oil in this ration exerts a depressing effect on the growth and health of the animals. These rats became very emaciated and suffered from inflammation of the eyes. This

ration with dextrin replacing the linseed oil is that fed to Lot 522, Chart 6. The bad effects of the linseed oil are not visible when the ration is improved by the inclusion of the butter fat as in Lot 514.

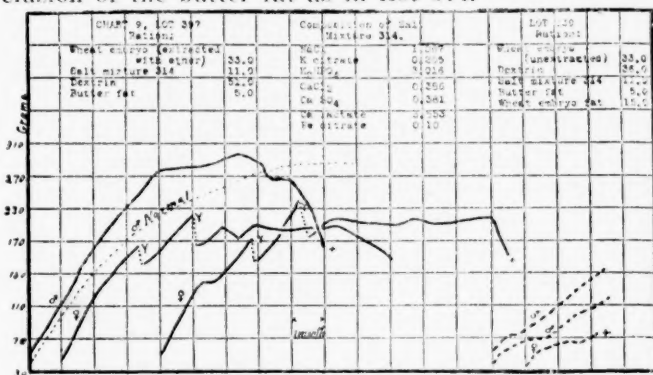


Chart 9. Lot 397 should be compared with Lot 639 whose rations were identical except that the wheat embryo in the latter was not extracted with ether and 15 per cent of the ether extract of wheat embryo was added instead of an equivalent amount of dextrin. Without the wheat embryo fats, growth progressed at the maximum possible rate. With these fats present growth was depressed to half the normal rate or less. The wheat embryo fats are distinctly toxic to animals, but this property will not be evident when fed with a highly satisfactory diet, except possibly through the accumulative effect over a long period.

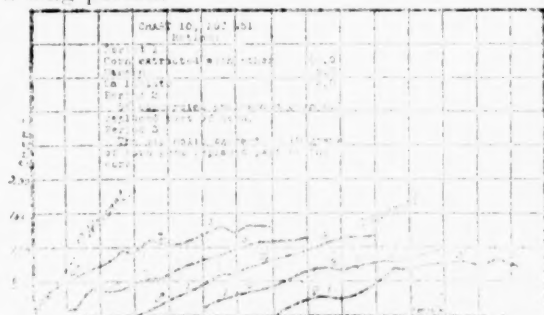


Chart 10. Lot 451, shows the property of ether extracted ground maize kernel, of promoting growth at a slow rate over a prolonged period. This, the ether extracted oil of corn, will not do. It should be noted that the inclusion of corn oil in period 2 or the alcoholic extract of corn grain in period 3 did not produce any

change in the direction of the curve of growth. The fat soluble A is present in the corn kernel but in amount below the optimum for growth, and the substance is not extracted by ether.

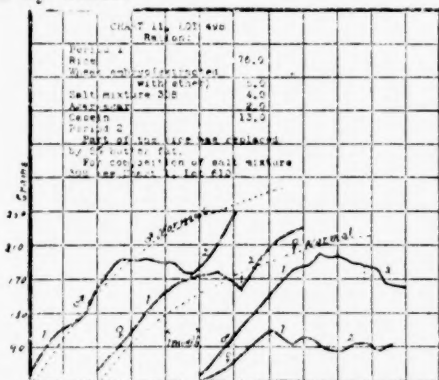


Chart 11. Lot 498. In this ration the only source of the fat soluble A was 5 per cent of completely ether extracted wheat embryo contained in the ration (period 1). During three months growth was normal but early failure ensued. That the shortage of the fat soluble A was the only factor responsible is shown by the prompt response of the two rats with growth when in period 2, 5 per cent of butter fat replaced 5 per cent of rice. There is no doubt but that this dietary factor is present in plant tissues but it seems unlikely that any isolated plant oil will contain it.

On cross-examination the witness testified that he is also the author of the article appearing in Volume 23 of the *Journal of Biological Chemistry* entitled "The Cause of the Loss of Nutritive Efficiency of Heated Milk," said article appearing upon pages 247 to 254.

Arthur G. Helmick,

called as a witness on behalf of the defendants, being duly sworn, testified that he resides at 78 South Fifth street, Columbus, Ohio, and has been a practicing physician for fifteen years, nine years in Columbus and the rest of the time spent in hospitals; that he received his medical education at the Starling Medical College; that he worked at the Boston Children's Hospital in Boston, paying particular attention to diseases of children; that the most important part of this study is feeding and nutrition of children; that he has attempted to keep familiar with the literature along this line; that the best milk for infants is mother's milk, and after that cow's milk; that it is an established fact from observation in

feeding children that all the chemical compositions of cow's milk must be present in proper proportion to give normal growth and development; that one element may be fed in place of another element and the child will seem to develop, but this will continue for only a short period of time because the chemical composition of milk cannot be substituted one in place of another since each has its own particular function, and to produce a normal condition in a child they must be present in their proper proportions; that at the present time there is no known vegetable fat which is adequate as a substitute for milk as an infant food.

Oscar Erf,

called as a witness on behalf of the defendants, being duly sworn, testified that he lives at 157 Twelfth avenue, Columbus, Ohio, and has charge of the Dairy Department of the Ohio State University; that he has held that position for about ten years; that he teaches the general branches of dairying there, the course including the testing of milk from a chemical standpoint and from a bacteriological standpoint; that he graduated from the Ohio State University and has taken some graduate courses at the Illinois University and also at the Ohio State University; that they manufacture evaporated milk at the University; that he is familiar to a certain extent with the history of evaporated or condensed milk; that evaporated and condensed milk would be considered by him as being the same substance; that the condensing of milk is first done by evaporating the water, which is the only process that has ever been used practically. That there is another way, by freezing; that methods of evaporation have not changed since the beginning; that he has no absolute figures of the extent to which evaporated milk is used, but that it is used to a very large extent at the present time for infant feeding and for human consumption in general; that its use is increasing because it is being used to a greater extent for general consumption; that he has tried to keep up as far as he could with the literature on the comparative value of butter fat and other fats; that there is not known to science any vegetable fat which supplies that quality which is found in butter fat for feeding young farm animals; that in the general feeding of young farm animals he had never found anything that was quite equal to pure milk with the butter fat in it; that animals not fed upon this did not look as smooth and healthy from observation; that he has used it in his experiments in the mixing of grain, corn oil, cotton seed oil, but has never used cocoanut oil.

On cross-examination the witness testified that the Ohio Agricultural College advises farmers to feed calves skimmed milk for economic reasons, and also advises them to supply the necessary fat by adding ground oats to the ration for economic reasons; that relatively speaking a ration of skimmed milk plus fat obtained by adding ground oats is a good ration for feeding calves, but is not as good as whole milk; that a human adult's ration is made up of a great many different articles none of which supplies all of the necessary elements of nourishment and growth, but that is not true for infants; that a man could not live on spinach alone, neither could he live on butter fat alone, nor on skimmed milk alone; that sometimes a baby is fed continuously upon condensed milks, although the witness stated that he is not an expert on these questions; that mother's milk would not be a proper ration for an adult; that condensed milk was first manufactured in 1852 and has been gradually growing from that time, and in the last couple of years has grown immensely; that whole milk subjected to a long, continued process of heating, would result in destroying the elements of growth in it, but that in a special process of heating by which it is subjected to a high temperature for a slight length of time elements of growth would not be destroyed, but they would be impaired to a limited extent only; that condensed milk and evaporated milk are sterilized at high temperatures; that there are different ways of sterilizing; that if they are subjected to heat for a long time then the vitamins are destroyed, but if subjected to heat at short intervals, which ordinarily is the case in the manufacture of condensed or evaporated milk, they are not destroyed; that by high temperature he means a temperature above the boiling point such as 200, 230 or 240 degrees; that there are various ways of supplying the temperature in manufacturing condensed or evaporated milk; that it may be subjected to a low temperature of 120 to 130 degrees for fifteen or twenty minutes, or 150 degrees for a short time, the method employed being dependent to a great extent upon the bacterial flora that is in the milk which has to be constantly observed; that the subjection of milk to a temperature of 230 degrees Fahrenheit for half an hour would destroy these elements of growth; that this last named method is not always employed in the manufacture of condensed milk, although it is employed once in a great while—because, if it is subjected to that long temperature it becomes brown and quite unsalable.

The witness further testified that he has no connection with the Ohio Creamery Association of Creamery Owners and Managers; that he is secretary of the Ohio State Dairyman's Association, which is a popular general organization; that as secretary of this organization he gets his instructions from the directors and also from the grange, which represents seventy thousand people, farmers in the State of Ohio producing milk products, and that the Grange instructed the witness to appear and give testimony in this case; that he gets no salary from these organizations; that he was interested in opposing the Oleo Legislation coming up at the session of Congress in 1915 and was in Washington before the Committee in their hearing; that he went there under instructions; that he has never been registered as a lobbyist; that whenever he is instructed to do so he takes a leading part in any fight in the Ohio Legislature against any competitor with milk or butter; that he appears before Legislative Committee only for the good of the public; that he has never made an argument before legislative committees to directly increase the price of butter or dairy products maliciously to the public; that he has always tried to conserve the public interests because he has no other interests at heart; that he has no private connection with the dairy interests and that the dairy interests have never paid him; that on his trips to Washington his expenses are paid by the Dairyman's Association and by the Grange.

The witness further testified that it is a very common practice among farmers to feed skimmed milk to pigs, because it is a good food and because there would be no profit in feeding whole milk with the butter fat in it; that skimmed milk does cause growth, but relatively speaking it has a much lower growing quality than whole milk; that while it is important to a farmer to fatten his hogs he nevertheless feeds them skimmed milk because of the difference in profits of the feed; that he would not say that skimmed milk does not cause the development of fat in the hog, but on the contrary he will say that it does cause such development, because some of the proteins in the skimmed milk are turned into fat and proteins. That farmers in order to fatten hogs for the market give them skimmed milk, and one hundred pounds of skimmed milk will make about four pounds of gain; that the Agricultural Department of Ohio State University recommends that in some cases young pigs of the age of one month be taken from the mother and put

on a diet of skimmed milk so that two litters of pigs may be raised during one year.

Dr. John A. Wesener, recalled by defendants for further cross-examination, testified that according to his memory the United States Government issued several circulars dealing with condensed milk, and in the earlier circulars condensed milk was defined as being milk to which sugar was added; that at the discussion preceding the issuance of these bulletins the witness was present and took part; that this may have been changed in the last circular known as Circular No. 19, but according to the witness' recollection circular No. 19 defined condensed milk as the sweetened product, and the evaporated milk as the unsweetened product.

Thereupon counsel for defendants offered in evidence Bulletin No. 158 issued by the U. S. Department of Agriculture. Thereupon plaintiffs by their counsel objected to the said bulletin being received in evidence because it does not bear on this case, although consenting that said bulletin might be received for the sole purpose of effecting the creditability of the witness. But the court ruled that said document might be received in evidence subject to plaintiffs' objection as aforesaid. The said document was thereupon received in evidence marked Defendants' Exhibit "D.. and is in the words and figures following, to wit:

"Defendants' Exhibit D."

F. I. D. 158.

Issued April 2, 1915.

United States Department of Agriculture,
Office of the Secretary.
Washington, D. C.

Food Inspection Decision 158.

Condensed Milk, Evaporated Milk, Concentrated Milk.

The Joint Committee on Definitions and Standards of the American Association of Dairy, Food, and Drug Officials, the Association of Official Agricultural Chemists, and the United States Department of Agriculture, on November 20, 1914, adopted the following definition and standard for condensed milk, evaporated milk, concentrated milk:

Condensed milk, evaporated milk, concentrated milk, is the product resulting from the evaporation of a considerable portion of the water from the whole, fresh, clean, lacteal secretion obtained by the complete milking of one or more healthy cows, properly fed and kept, excluding that obtained within fifteen days before and ten days after calving, and contains, all tolerances being

allowed for, not less than twenty-five and five-tenths per cent (25.5%) of total solids and not less than seven and eight-tenths per cent (7.8%) of milk fat.

The foregoing definition is adopted as a guide for the officials of this department in enforcing the Food and Drugs Act, and Food Inspection Decision No. 131 is revoked.

D. F. Houston,

Secretary of Agriculture.

Washington, D. C., March 26, 1915.

87652°-15.

Washington: Government Printing Office: 1915.

L. P. Bailey,

called as a witness on behalf of the defendants, being duly sworn, testified that he resides at Barnesville, Ohio; that he has been a farmer for sixty-five years; that he is really a live stock farmer and has had some experience in feeding.

Thereupon counsel for defendants asked the witness the following question:

Q. You may tell the court whether in the course of your experience and experiments you have found any adequate substitute for milk as a food for growing animals?

Plaintiffs by their counsel objected to the above question because it does not appear what experiments the witness has made; but the court ruled that the question should be answered by the witness subject to the objection of plaintiffs, to which ruling of the court plaintiffs by their counsel then and there duly excepted.

Thereupon the witness in answer to the above question testified:

That he has had quite a great deal of experience in feeding calves with skimmed milk and whole milk also; that his universal practice is if he wants to raise a good calf, to give it the mother's milk or let it run with the cow; that because he has dairy cows he milks the cows and feeds the calves three weeks with the whole milk and then reduces the whole milk somewhat with skimmed milk or water and when they are three weeks old a little hay, and corn, and oats is added and the calves eat that and digest it readily; that he could not make a good calf unless he fed whole milk for about three weeks; that he has tried substitutes and a good many different calf foods and preparations made as substitutes for milk, but has discarded all of them because they throw the digestion out of order in a young calf.

On cross-examination the witness testified that in ap-

pearing at the trial he represents the Ohio State Dairyman's Association in the capacity of President; that he is interested in this trial as President of the Ohio Dairyman's Association and as representing the dairy interests in Ohio; that he certainly wants to keep this product (Hebe) out of the State of Ohio.

The witness further testified that skimmed milk is all right for growing pigs but not as an exclusive feed, is not good for fattening pigs if used by itself; that it is necessary to add meal or middlings or bran with the skimmed milk in order to get results; that commercial bran has fat in it; that while it may be possible to fatten a hog by feeding it whole milk all the time, the witness does not think it would be advisable to feed whole milk after the hog reached one hundred pounds in weight, because they then need some grain.

Thereupon defendants rested their case.

Dr. John A. Wesener,

called as a witness in rebuttal on behalf of plaintiffs, being duly sworn, testified that he has made a great many experiments such as those already testified to by Professor Hutchinson; that he has made such tests in a great many laboratories, including the laboratories of the University of Michigan, the Chicago University, and others; that the usual method of making such a test is to choose the right animals and where milk or a compound of milk is to be fed the witness stated that he would not select white rats, because a white rat is always filled with diseases of different kinds, especially parasites; that there is hardly a white rat that a parasite cannot be found in the internal organs if a careful post-mortem is made; that white rats also have an infectious pneumonia and die very rapidly from it, and they have other diseases; that if witness were making an experiment with milk or a compound of milk, he would rather select kittens, because milk is the natural food of kittens and they are very hardy animals, and therefore a litter could be obtained and divided so as to have one-half on the experimental lot of food, and the other half on the control; that possibly one hundred or two hundred animals should be used, and even then sufficient proof might not be arrived at to warrant the making of a positive statement as to the result obtained from that number of tests; that if white rats are chosen, however, they should be first selected from the same litter, and this litter should be divided into two lots, one for the regular milk and the other for the Hebe milk; that before starting such an experiment the animals should have been kept on their normal diet as nearly as possible for a

period of a week or two weeks for observation and to see whether there was developed any rat disease common to the white rat, and if so those animals should have been eliminated and in this way would have been avoided as much as possible those errors which later crept into the experiments, say three or five weeks or several months later; that every animal that died in any experiment of this kind should have had a post-mortem performed on it to find out the cause of death, because the animals might have developed pneumonia or might have had these parasites; that it is the witness' understanding that most of the white rats in Professor Hutchinson's experiment already had parasites; that a parasite is not a bacteria, the former being an animal organism that lives; that another criticism which the witness would offer to the experiment of Professor Hutchinson is the filthy condition of the pans in which food was put to feed these rats, being only cleaned once in four days, and milk put in these pans in liquid form quickly deteriorates when exposed to the air, and it is known that milk when infected with certain bacteria will produce violent poison; that this has happened where ice cream has poisoned picnic parties, etc., and this subject was discussed by Dr. Bowen of the University of Michigan; that all of these elements must be eliminated in making these animal tests, otherwise they are of absolutely no value at all.

Complainants' Exhibits

The complainants during the course of the above hearing introduced in evidence the following exhibits, and said exhibits were received in evidence and marked as follows:

Exhibit No. 1. Consists of a bottle of Whole Milk, which exhibit is filed herewith and made a part hereof.

Exhibit No. 2. Consists of a bottle of Skimmed Milk, which exhibit is filed herewith and made a part hereof.

Exhibit No. 3. Consists of a package of Whole Milk Creamery Butter, which exhibit is filed herewith and made a part hereof.

Exhibit No. 4. Consists of a bottle of Cocoanut Oil, which exhibit is filed herewith and made a part hereof.

Exhibit No. 4½. Consists of a Can of "Hebe", which exhibit is filed herewith and made a part hereof.

Exhibit No. 5. Is a copy of the label used on Hebe and is the same as the Hebe label set out in the bill of complaint.

Exhibit No. 6. Was one of the former labels used on "Hebe" in Ohio, and is in the words and figures following, to wit:

Net Contents 1 lb. Avoirdupois

Hebe

A Compound of

Evaporated Skimmed Milk

and Vegetable Fat

Contains 6% Vegetable Fat,

24% Total Solids.

Manufactured at Jefferson, Wis.

The Hebe Company

General Offices: Seattle, Wash.

Patent
Applied
For

For Coffee and
For Baking and
Cooking

Tall Size
48 Cans
per Case

Net Contents 1 lb. Avoirdupois

Hebe

A Compound of

Evaporated Skimmed Milk

and Vegetable Fat

Contains 6% Vegetable Fat,

24% Total Solids.

Manufactured at Jefferson, Wis.

The Hebe Company

General Offices: Seattle, Wash.

You'll
Like Hebe
Better than
Milk

Tall Size
48 Cans
per Case

Exhibit No. 7. Is Bulletin No. 505 of the United States Department of Agriculture, dated Feb. 13, 1917, the material part whereof is in the words and figures following, to wit: Being pages 1, and 10-13 hereto attached.

Introduction

"Studies of the digestibility of some common animal fats, including lard, beef fat, and butter, have been reported in a previous paper of this series. The results of these experiments showed that all the animal fats investigated were satisfactorily digested and are suitable for use in quantity as food.

The available supply of animal fats, however, is now little if any in excess of the demand, and it is likely that the supply of such fats for culinary purposes in the future will be even less adequate than at the present time. It is probable, therefore, that in the future greater reliance must be placed on the vegetable fats to supplement the available animal-fat supply. The experiments reported in this bulletin, showing the thoroughness of digestion of certain vegetable oils and indicating in a general way their suitability for food, have an important bearing on this question. The fats studied included olive oil, cottonseed oil, peanut oil, cocoanut oil, sesame oil, and cocoa butter.

Experiment No.	Subject.	Protein.	Fat.	Carbo-hydrates.	Ash.
		<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
30	J. N. F.	69.2	97.5	96.8	55.2
31	W. E. L.	73.9	97.6	98.4	69.4
32	W. A. D.	81.4	96.1	96.3	52.4
36	J. N. F.	77.2	93.7	96.0	52.4
37	J. V. C.	76.2	95.3	96.7	44.6
	Average	75.6	96.0	96.8	54.8

Approximately 98 grams of peanut oil or 97 per cent of the total amount of fat in this diet was eaten per subject per day, and as the coefficient of availability, 96 per cent, implies, the fat was very completely assimilated. This value is increased somewhat by correcting for metabolic products, from which it is calculated that peanut oil is 98.3 per cent digested.

The protein and carbohydrate in the ration were also well utilized, for by way of comparison it has been found that in the total food of the ordinary mixed diet 92 per cent of the protein, 95 per cent of the fat, and 97 per cent of the carbohydrate are retained by the body.

As the subjects reported no unusual effects as a result of eating this diet, and as no laxative effect was observed, it is apparent that peanut oil of good quality is a

useful food, which can be eaten in the same quantities and can be as thoroughly digested as those fats and oils at present most commonly used in the diet.

Cocoanut Oil

Cocoanut oil is obtained from the fruit of the palm *Cocos nucifera*. In recent years it has become rather widely known and is assuming considerable importance as a culinary and table fat. It is used in the commercial baking trade more commonly than it is for household purposes and to some extent in the preparation of butter substitutes.

The digestibility of cocoanut oil has not been extensively studied. Bourot and Jean carried on a series of experiments with subjects who received foods prepared first with natural butter and then with cocoanut butter. They concluded that the vegetable product was somewhat more thoroughly assimilated than was butter, the former being 98 per cent and the latter 96 per cent digested.

In a series of tests of 28 days' duration, divided into a fore period of 7 days, a 14-day experimental period, and an after period of 7 days, Von Gerlach found that purified cocoanut oil, called "sanella," and true butter were both 97 per cent digested.

Luhrig reports a similar study in which different amounts of so-called cocoanut butter designed for use as a butter substitute were eaten in a simple mixed diet. In one of the tests 136 grams of the fat was consumed daily for three days, and in the second 90 grams per day for the same length of time. In the first test the fat was 97 per cent available and in the second, 96 per cent was assimilated.

Seven experiments are reported in this paper to compare the digestibility of cocoanut oil with that of other edible fats, and four experienced subjects assisted in the work. Under conditions customary in these tests, the data have been collected and are summarized in the following tables:

Data of Digestion Experiments With Coconut Oil in a Simple Mixed Diet.

	Weight.	Water.	Protein.	Fat.	Carbo- hydrates	Ash.
Experiment No. 175, subject D.G.G.	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>
Blancmange containing coconut oil	1,057 0	498 6	19 8	108 9	424 1	5 6
Wheat biscuit	656 0	59 1	69 5	9 8	507 1	10 5
Fruit	660 0	573 5	5 3	1 3	76 6	3 3
Sugar	125 0				125 0	
Total food consumed	2,498 0	1,131 2	94 6	120 0	1,132 8	19 4
Feces	98 0		28 4	8 5	52 4	8 7
Amount utilized			66 2	111 5	1,080 4	10 7
Per cent utilized			70 0	92 9	95 4	55 2
Experiment No. 176, subject R.L.S.						
Blancmange containing coconut oil	1,518 0	716 0	28 5	156 4	609 1	8 0
Wheat biscuit	293 0	26 4	31 0	4 4	226 5	4 7
Fruit	1,335 0	1,160 1	10 7	2 7	154 8	6 7
Sugar	127 0				127 0	
Total food consumed	3,273 0	1,902 5	70 2	163 5	1,117 4	19 4
Feces	79 0		26 3	13 5	30 5	8 7
Amount utilized			43 9	150 0	1,086 9	10 7
Per cent utilized			62 5	91 7	97 3	55 2
Experiment No. 177, subject O.E.S.						
Blancmange containing coconut oil	1,741 0	821 2	32 7	179 3	698 6	9 2
Wheat biscuit	98 0	8 8	10 4	1 5	75 7	1 6
Fruit	1,398 9	1,214 9	11 2	2 8	162 1	7 0
Sugar	37 0				37 0	
Total food consumed	3,274 0	2,044 9	54 3	183 6	973 4	17 8
Feces	77 0		25 0	8 3	36 6	7 1
Amount utilized			29 3	175 3	936 8	10 7
Per cent utilized			54 0	95 5	96 2	60 1
Experiment No. 178, subject R.F.T.						
Blancmange containing coconut oil	1,460 0	688 7	27 4	150 4	585 8	7 7
Wheat biscuit	74 0	6 7	7 8	1 1	57 2	1 2
Fruit	1,317 0	1,144 5	10 5	2 6	152 8	6 6
Sugar	139 0				139 0	
Total food consumed	2,990 0	1,839 9	45 7	154 1	934 8	15 5
Feces	52 0		13 8	7 7	24 8	5 7
Amount utilized			31 9	146 4	910 0	9 8
Per cent utilized			69 8	95 0	97 3	63 2
Experiment No. 199, subject D.G.G.						
Blancmange containing coconut oil	863 0	398 0	16 7	90 9	350 2	6 3
Wheat biscuit	525 0	47 2	55 7	7 9	405 8	8 4
Fruit	396 0	344 1	3 2	0 8	45 9	2 0
Sugar	162 0				162 0	
Total food consumed	1,946 0	790 2	75 6	99 6	963 9	16 7
Feces	94 0		28 8	11 9	44 8	8 5
Amount utilized			46 8	87 7	919 1	8 2
Per cent utilized			61 9	88 1	95 4	49 1

	Weight.	Water.	Protein.	Fat.	Carbo- hydrates	Ash.
Experiment No. 200, subject R. L. S.:	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>
Blancmange containing coconut oil	1,537 0	710 4	29 8	161 9	623 7	11 2
Wheat biscuit	366 0	32 9	38 8	5 5	282 9	5 9
Fruit	401 0	348 5	3 2	0 8	46 5	2 0
Sugar	155 0				155 0	
Total food consumed	2,459 0	1,091 8	71 8	168 2	1,108 1	19 1
Feces	103 0		33 4	15 8	42 2	11 6
Amount utilized			38 4	152 4	1,065 9	7 5
Per cent utilized			53 5	90 6	96 2	39 3
Experiment No. 201, subject O. E. S.:						
Blancmange containing coconut oil	1,811 0	850 9	35 7	193 9	747 1	13 4
Wheat biscuit	186 0	16 7	19 7	2 8	143 8	3 0
Fruit	1,713 0	1,488 6	13 7	3 4	198 7	8 6
Sugar	166 0				166 0	
Total food consumed	3,906 0	2,356 2	69 1	200 1	1,255 6	25 0
Feces	94 0		29 7	11 8	43 1	9 4
Amount utilized			39 4	188 3	1,212 5	15 6
Per cent utilized			57 0	94 1	96 6	62 4
Experiment No. 202, subject R. F. T.:						
Blancmange containing coconut oil	1,247 0	576 4	24 2	131 3	506 0	9 1
Wheat biscuit	62 0	5 6	6 6	0 9	47 9	1 0
Fruit	1,412 0	1,227 0	11 3	2 8	163 8	7 1
Sugar	112 0				112 0	
Total food consumed	2,833 0	1,809 0	42 1	135 0	829 7	17 2
Feces	37 0		10 5	6 1	16 2	4 2
Amount utilized			31 6	128 9	813 5	13 0
Per cent utilized			75 1	95 5	98 0	75 6
Experiment No. 222, subject D. G. L.:						
Blancmange containing coconut oil	1,625 0	744 2	50 5	238 7	600 2	11 4
Wheat biscuit	490 0	44 1	51 9	7 4	378 8	7 8
Fruit	965 0	838 6	7 7	1 9	112 0	4 8
Sugar	210 0				210 0	
Total food consumed	3,290 0	1,626 9	90 1	248 0	1,301 0	24 0
Feces	84 0		25 8	9 5	41 3	7 4
Amount utilized			64 3	238 5	1,259 7	16 6
Per cent utilized			71 4	96 2	96 8	69 2
Experiment No. 223, subject R. L. S.:						
Blancmange containing coconut oil	1,847 0	845 9	34 7	271 3	682 2	12 9
Wheat biscuit	290 0	26 1	30 7	4 4	223 2	4 6
Fruit	1,065 0	925 5	8 5	2 1	123 6	5 3
Sugar	96 0				96 0	
Total food consumed	3,298 0	1,797 5	73 9	277 8	1,126 0	22 8
Feces	93 0		29 0	17 5	35 7	9 8
Amount utilized			44 9	26 30	1,089 3	13 0
Per cent utilized			60 8	93 7	96 7	57 0
Experiment No. 224, subject O. E. S.:						
Blancmange containing coconut oil	2,678 0	1,236 5	50 2	393 4	989 1	18 8
Wheat biscuit	263 0	23 7	27 9	3 9	203 3	1 2
Fruit	1,449 0	1,259 2	11 6	2 9	168 1	7 2
Sugar	196 0				196 0	
Total food consumed	4,586 0	2,509 4	89 7	400 2	1,556 5	30 2
Feces	96 0		26 9	14 9	46 6	7 6
Amount utilized			62 8	385 3	1,509 9	22 6
Per cent utilized			70 0	96 3	97 0	74 8
Experiment No. 225, subject R. F. T.:						
Blancmange containing coconut oil	1,696 0	776 8	31 8	249 1	626 4	11 9
Wheat biscuit	221 0	19 9	23 4	3 3	170 8	3 6
Fruit	1,317 0	1,141 5	10 5	2 6	152 8	6 6
Sugar	130 0				130 0	
Total food consumed	3,364 0	1,941 2	65 7	255 0	1,080 0	22 1
Feces	78 0		20 8	18 7	29 5	9 0
Amount utilized			44 9	236 3	1,050 5	13 1
Per cent utilized			68 3	92 7	97 3	59 3
Average food consumed per subject per day	1,017 7	578 9	23 4	66 8	371 7	6 9

Summary of Digestion Experiments with Coconut Oil in a Simple Mixed Diet.

Experiment No.	Subject.	Protein.	Fat.	Carbo- hydrates.	Ash.
		<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
175	D. G. G.	70.0	92.9	95.4	55.2
176	R. L. S.	62.5	91.7	97.3	55.2
177	O. E. S.	51.0	95.5	96.2	60.1
178	R. F. T.	69.8	95.0	97.3	63.2
199	D. G. G.	61.9	88.1	95.4	49.1
200	R. L. S.	53.5	90.6	96.2	39.3
201	O. E. S.	57.0	91.1	96.6	62.4
202	R. F. T.	75.1	95.5	98.0	75.6
222	D. G. G.	71.4	96.2	96.8	69.2
223	R. L. S.	60.8	93.7	96.7	57.0
224	O. E. S.	70.0	96.3	97.0	74.8
225	R. F. T.	68.3	92.7	97.3	59.3
	Average	64.5	93.5	96.7	60.0

On an average 64.6 grams of coconut oil was eaten daily and was well digested by the four subjects in these experiments, the average coefficient of digestibility being 93.5 per cent. The coefficient of availability is increased to 97.9 per cent by correcting for the metabolic products occurring in conjunction with the unutilized fat in the ether extracts of the feces. In experiment No. 224, with subject O. E. S., a relatively large amount of the fat, 131 grams per day, was even more completely assimilated and, as evidenced by the report, produced no abnormal alimentary symptoms. In fact, no one of the subjects reported any laxative condition.

The protein and carbohydrates were 64.5 per cent and 96.7 per cent available to the body, values which compare favorably with the thoroughness of digestion of these constituents usually found in similar tests. It may be reasonably concluded on the basis of these results that coconut oil is suited to serve satisfactorily for food purposes.

Sesame Oil

The seeds of the sesame plant (*Sesamum indicum*) yield when subjected to pressure an oil very similar in properties to cottonseed oil. Sesame oil is not produced in the United States for culinary purposes, although it is well known elsewhere and is imported to some extent for use by those who have become accustomed to its use in other countries.

Although tests of its digestibility have not been found on record, it is evident from a knowledge of oriental food habits and diets that sesame oil is well known as a useful food in the far eastern countries. The experiments herein reported were undertaken in order that the comparative results obtained with the vegetable fats might be as comprehensive as possible. The same methods

were employed in these tests as with the other fats, and four subjects took part in the work."

Exhibit No. 8. Is the Monthly Bulletin of the Ohio Agricultural Experiment Station, Vol. 1, December 1916, No. 12, the material part whereof is in the words and figures following, to wit: Being pages 363 to 370 both inclusive.

Misguided Appetite And The High Cost Of Living

A. E. Perkins

"In the discussion which has been so popular in recent years regarding the high cost of living, much attention has been given to the high and increasing cost of foods. Among the various contributing causes which have been rather thoroughly considered the following are mentioned as being of special significance: the rapid increase in our population, the increased price and lowered fertility of our soil, the lack in many localities of proper shipping and marketing facilities, extortion in various forms practiced by carriers and middlemen, extravagant methods of purchasing and delivering in the towns and cities, an increasing tendency even among farmers themselves to live upon highly advertised package goods to the exclusion of the equally valuable and less expensive bulk or home parparations, the increasing use of the more expensive ready-to-serve preparations even in homes where ample facilities exist and time should willingly be given to perform the service of cooking. The two causes last mentioned above have been treated so far as cereal breakfast foods are concerned in a recent bulletin (No. 168) from the South Dakota Experiment Station. Another important cause which has not been given much attention is taken as the title of this article.

Food requirement.—It may be well to mention at this point that the commonly accepted food requirement of an adult man is slightly more than $\frac{1}{4}$ pound of protein, $\frac{1}{2}$ pound of fat and 1.1 pounds of carbohydrates daily, varying with weight, age, individual peculiarity and manner of life. Since the fats and carbohydrates (sugars, starch, etc.) serve the same function in the body and can usually be made to replace each other without serious results, these two classes of foods are usually considered together (1 unit of fat being considered equal to $2\frac{1}{4}$ units of carbohydrates).

The model daily ration cited above is thus said to contain one part of protein to each 5.6 parts of carbohydrates and fat, and is commonly spoken of as having a nutritive ratio of 1:5.6. The vital and working parts of our bodies consist mostly of protein. For this reason

sufficient protein must be supplied in the food to replace these parts as they wear out, and also to provide for any growth which is to take place. A decided shortage of protein cannot be made up by an excess of the other ingredients, although a shortage of the others can be made up to a limited extent by an excess of protein.

Composition of foods.—The cereal grains, which constitute the bulk of the rations of most people in the form of the various kinds of bread, pastry, breakfast foods, etc., contain only one part of protein to each 8 or 10 parts of the other ingredients; and aside from nuts, peas and beans most of the other common plant or vegetable foods contain even a much smaller proportion of protein than the cereals. Hence, if a person attempted to make up his diet entirely from the fruits and fresh vegetables, he would need to consume a large excess of carbohydrates and fat, and also a much greater bulk of food than he would relish, in order to get sufficient protein for his needs.

The urchin who, in response to a question from his physiology teacher as to what is a nutritious food, answered "a food what aint got no taste" must have had first-hand experience in confining his diet largely to the cheap and highly nutritious but low-flavored group of foods, such as the cereals, peas and beans. The boy answered more wisely than he knew, however, for the protein as a class when separated from the natural foods by chemical means are nearly devoid of flavor. In the case of most animal foods, such as meat, fish, milk and eggs in their natural conditions, however, the boy's rule would not hold; for, although these foods are most nutritious and contain protein in high excess over the requirements of our bodies, they also possess abundant and pleasing flavors. They are thus seen to be the logical supplements to a vegetable diet to make it fit the needs of the human body. Even with the large portion of the human race which for religious or other reasons abstain from eating meat the use of milk and eggs is common.

Appetite a guide in food selection.—If the use of animal foods in this way were peculiar to the present generation and to civilized countries, one might ascribe such use, at least in part, to the knowledge that these foods provide the extra protein needed in the diet as explained above; but, since almost nothing was known regarding the exact composition of the various foods or regarding the exact food requirements of the human body until the last half-century, we must conclude that

flavor and appetite have been, as they still remain, the chief guides in the selection of these foods by adults as regular constituents of their diet. This is but a single illustration of the many ways in which man's sense of taste undeceived by the sophistications of man himself has guided him in the right way regarding the selection of his food.

The Use of Milk and Milk Products.

Because of its liquid condition and pleasing flavor and because it contains all the essential food elements in easily digestible form, milk often becomes the sole food of mankind, as in infancy and serious sickness. Its liquid form also makes it especially suitable as a supplement to the dry cereals and in various ways in cooking and serving other foods. The fact that it does not, like meat, require the sacrifice of life for its production has also helped to make its use well-nigh universal. Under present-day conditions, too, it is by far the cheapest of the animal foods.

Little is known regarding the time or the way in which man first learned to make use of cream and butter. Probably they were at first regarded as salvage products from the more perishable milk. Butter, which has long been regarded as one of the staple food products, is rarely eaten by itself, being used almost exclusively to add flavor to other foods. Thus, while both milk and butter have been prized chiefly for their flavor, butter flavor is not associated in the popular mind with the flavor of the milk from which it is derived, but is usually considered as an entirely separate article. Butter is an undisguised fat, and though it is appetizing one is rarely tempted to overeat of it. It would be difficult to estimate to what extent cream has been used at various times in the remote past as compared with the present, but it is certain that within recent years, since the introduction of the centrifugal separator making possible the separation of cream in an entirely fresh and unfermented condition, the use of sweet cream directly as food has increased many fold. The phenomenal growth of the ice-cream industry, which is directly dependent upon sweet cream and represents only one of the avenues of its increased use, is too well known to need further comment. The flavor of milk is mostly associated with the fat, and when the milk fat is concentrated into the form of cream the flavor, which has always made milk such a popular food, is greatly intensified in the cream; while the skim-milk is left rather low in flavor. The result from a commercial standpoint is that the cream from a given quan-

tity of milk, containing approximately half the total energy value of the milk mostly in form of fat, usually commands as high a price as the original milk would have brought, while the skimmilk, containing the other half of the total value of the original milk in form of protein and milk sugar, is rarely sold at all as a human food, but must be either fed to animals or thrown away.

Comparative food values.—In the accompanying table are shown the food values from two different standpoints of one quart of milk, one quart of skimmilk and one quart of cream, in terms of a number of the more common foods. The figures represent in every case articles of medium quality and are based on the amount of edible food material in one pound of each of the foods as ordinarily purchased. Most of the analyses on which the table is based were originally reported by Atwater and Byrant of the Office of Experiment Stations, U. S. Department of Agriculture. They are quoted by us from Leach, "Food Inspection and Analyses."

The digestibility of the various foods is not considered in this table. Milk is much more digestible than many of the other foods, so that the actual comparative values of milk, skimmilk and cream would in many cases be considerably greater than shown here.

Erroneous idea regarding the value of cream. The popular conception regarding cream (brought about mainly, no doubt, by its flavor, consistency and color) is that it contains in concentrated form most of the valuable food materials originally present in the milk. The corresponding idea regarding skimmilk is that it is little better than water. A study of the accompanying table should serve to show how far these common conceptions are from the truth. While it is true that cream is a highly valuable food—as a dessert it has no superior—yet it is true also that it can no longer, like milk, be regarded as a cheap and staple article of diet, but must be considered as belonging in the fancy or dessert class. We have shown above how man's taste has led him to the wise selection of milk from among other foods as a proper supplement to a vegetable diet. We must now show the same taste or appetite deceived by man's cunning in modifying the natural foods leads him not only to extravagance but to actual injuries to his own body by the selection of improper combinations of foods. When the milk flavor is concentrated and intensified in the cream, it follows logically that the same appetite which led to the selection of milk as a most desirable

Purchased foods of medium grade	Whole milk		Skim milk		30 per cent cream	
	One quart equals		One quart equals		One quart equals	
	in total food or energy value	in protein content	in total food or energy value	in protein content	in total food or energy value	in protein content
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Round steak	0 749	0401	0 398	0 421	3 19	0 285
Rib roast (beef)	580	548	309	575	2 47	390
Ham	434	429	231	450	1 85	305
Pork sausage	319	586	170	615	1 36	417
Chicken	2 240	600	1 190	626	9 55	424
Eggs*	1 090	640	581	672	4 64	455
Fish (white)	2 060	719	1 100	755	8 78	511
Oysters	15 310	6 400	8 160	6 720	65 20	4 550
Cheese (full cream)	375	303	200	318	1 59	215
Butter	195	9 000	104	9 400	83	6 370
Oatmeal	361	519	192	544	1 54	369
Cornmeal	405	830	215	870	1 72	590
Wheat flour	406	687	216	721	1 72	489
Rice (unpolished)	400	950	213	998	1 70	676
Peas (dry)	428	381	229	400	1 83	271
Beans (dry)	415	339	221	356	1 76	241
Bread (white, homemade)	521	1 050	334	1 100	2 22	745
Potatoes	1 420	3 800	759	3 990	6 65	2 700
Beets	3 860	5 860	2 060	6 150	16 46	4 170
Tomatoes	6 290	8 440	3 350	8 850	26 80	6 440
Lettuce	9 120	8 130	4 860	8 530	38 80	5 870
Apples	3 030	24 700	1 610	25 900	12 70	17 600
Bananas*	2 240	9 600	1 190	10 080	9 53	6 830
Strawberries*	3 870	8 440	2 060	8 850	16 50	6 000
Walnut (California)	755	1 600	403	1 630	3 22	1 100
Peanuts (in shell)	345	391	184	410	1 47	278

*A dozen average eggs weigh 1 6 lb.; a dozen bananas, 3 5 to 4 lb.; a quart of strawberries, 17 to 18 oz.

Note—A quart of whole milk weighs 2 15 lb. and contains 3 7 percent fat, 3 6 percent protein and 4 9 percent sugar; a quart of skimmilk weighs 2 16 lb. and contains 0 1 percent fat, 3 7 percent protein and 5 1 percent sugar; a quart of 30 percent cream weighs 2 07 lb. and contains 30 percent fat, 2 6 percent protein and 3 6 percent sugar.

food will almost invariably, unless definite knowledge and rare determination or compelling financial considerations intervene, lead to the selection of cream in preference to milk. Milk with its nutritive ratio of 1:3.8 makes an ideal supplement to a meal composed largely of cereal products, fruits, etc., with their nutritive ratio of 1:8 or higher; the milk will make the diet conform to the needs of our bodies requiring a nutritive ratio of 1:5.6. Cream containing 15 percent butterfat will ordinarily contain about 3.1 percent protein and 4.3 percent sugar; that containing 30 percent butterfat will have about 2.6 percent protein and 3.6 percent sugar. Their nutritive ratios will thus be about 1:12.3 and 1:27.3, respectively. A good grade of table cream will usually fall between these limits.

Let us examine in detail a common breakfast menu: Fruit (food material mostly carbohydrate), cereal and cream (fats and carbohydrates in great excess), buttered toast or rolls (also high in carbohydrate and fat), a sweetened cake or cookie (having a large excess of fats and carbohydrate), coffee with almost no food value in itself but flavored with cream and sugar. The effect of the replacement of milk by cream in a meal of this na-

ture on unbalancing the diet must be apparent to all. The fat requirement of the entire day would likely be exceeded at the breakfast cited above, while not nearly sufficient protein, or tissue building material, would be provided to meet the needs of the body. If the skimmilk with its nutritive ratio of 1:1.4 which nature mixed with the cream, had been left there instead of being removed and fed to pigs or thrown away, the meal cited above would still have been highly palatable and much better suited to the needs of those consuming it. It would also have been much cheaper.

While butterfat is digested and used by our bodies probably more readily than any of the other food fats, it is also well known that large excesses of fats will often produce digestive disturbances; and if the appetite aided and abetted by the latest fads in foods is allowed to play similar tricks on the stomach at the remaining meals of the day, the person or family will have paid an excessive price for food and still have gone ill fed. Digestive disorders of serious nature are sure to follow a continued program of this kind.

Food value of skimmilk.—Let us now consider the subject of the skimmilk which is discarded in the scheme just outlined. With the exception of water and salt man's food is derived entirely from plants, either directly in the form of grains, vegetables and fruits, or indirectly from the bodies, milk or eggs of animals, which in turn depend upon plants for their food. Animals return in the products named only a small part of the food material which must be supplied them in their food. The return in the case of meat-producing animals is from a minimum of 3 or 4 percent to a maximum of about 16 percent, depending upon species, breed, age at slaughter, individuality of the animal, and the efficiency of the ration supplied. Milch cows are the most efficient producers of animal food; yet, even they seldom return more than 25 to 30 percent of the energy value contained in their food.

This apparent great waste is justifiable only on the grounds that most of the food supplied to these animals would not be suitable for human food, while the meat, milk, etc. which they return is, of course, highly desirable for this purpose. Leaving aside the matter of flavor, however, the only advantage of these animal foods over those of vegetable origin lies in the fact that most of them contain large amounts of easily digestible protein. Protein, though it is absolutely essential in our diets, is the least plentiful and most expensive of the

three main classes of food materials; in fact, the greater part of the world's animal industry, with its great waste in energy value as explained just above and its great cost in human labor, is merely a process of protein concentration. Skimmilk of average quality contains about 3.7 percent protein and 5.1 percent milk sugar. Authorities are generally agreed that both these substances as found in skimmilk are at least fully as digestible and useful to our bodies as those obtainable from any other source. Skimmilk, then, aside from being somewhat low in flavor is a most excellent form of human food, containing in large quantity the very substance which when purchased in other foods is the most expensive ingredient of our diet. It will readily be seen what a great economic loss is caused by throwing away or feeding to animals so valuable a food, and one obtained in common with other animal foods at as great a cost; yet, many thousands of gallons suffer this fate daily in Ohio alone.

Repeated experiments have shown that skimmilk is worth from 25 cents to 40 cents per hundredweight to replace other feeds at current prices in rations for meat-producing animals. By combining these figures with those given in the preceding paragraph, it is apparent that skimmilk should be worth from \$2 to \$7 or \$8 per hundredweight in actual food value in the human diet in competition with the meat obtained from these animals. That these figures are not at all too high can readily be seen by comparing the food material contained in the two products by actual analysis, at the price which must be paid for them in the form of meat. Skimmilk, then, at 5 cents or even 10 cents per quart would be an extremely economical food, and having a nutritive ratio of 1:1.4 would constitute the cheapest and one of the best sources of the extra protein needed to balance a vegetable diet. Skimmilk also contains an abundant supply of mineral matter which is often sadly deficient in our diets. While devoid of the high flavor and aroma characteristic of butterfat, skimmilk still possesses a delicate and pleasing flavor due to its milk sugar and is in itself to those whose taste has not been spoiled by highly flavored dainties a palatable as well as a highly nutritious food.

Like loss with other foods.—Similar conditions exist regarding other foods. The most valuable constituents of many of the cereals and garden vegetables are removed in preparing them for use to improve such features as the color, texture or flavor of the product. Meat is not considered desirable unless the animal yielding it

is fat when slaughtered; yet, much of this same fat produced at so high a cost goes into garbage cans instead of into human stomachs.

Many people disdain cereal served with milk and most of the common vegetable foods, and base their diet largely on meat. On the alleged ground that the meat has a more lasting effect in satisfying their hunger than the other foods. Yet, let a piece of the most tempting beef-steak be extracted with water or pressed to obtain broth or meat juice for an invalid, and the solid portion which remains, containing probably more than 95 percent of the real food material present in the original meat, would be spurned by these same people as quickly as skimmilk and for the same reason. The other side of the story as applied to meat is illustrated by the willingness of people to pay from \$2 to \$4 per pound for meat extract, which has repeatedly been shown to consist almost entirely of flavoring material and stimulating salts and to contain but little of the protein substance which gives to meat most of its real food value.

We believe that we have advanced sufficient evidence to show that in many cases people, guided mainly by appetite, think they are buying food with more or less flavor thrown in when they are in reality buying flavor with a little food value incidentally included. In the choice of the natural foods, appetite is usually a fairly reliable guide to the selection of a proper diet, but in these days of sophisticated and modified foods, appetite alone will frequently lead one to spend his living on mere flavored husks; while the real food value of the article shorn of its flavor is allowed to waste. It would be difficult indeed to overestimate the effect of these tendencies on the high cost of living."

Exhibit No. 9. Is Bulletin No. 469 of the United States Department of Agriculture, dated December 15, 1916, the material part whereof is in the words and figures following, to wit:

Being those parts of pages 3, 4, 5, 13, 14, 15, 16, and 17 of exhibit hereto attached which are enclosed in quotation marks.

The Place of Fats in the Diet.

"The chief value of fats in nutrition is that they furnish energy which the body requires to perform its work. The ideal diet should contain sufficient quantities of fat and carbohydrates to insure it the required amount of energy, as well as a sufficient quantity of protein to supply the necessary nitrogen for growth and repair of the body, also mineral matter for growth and other body

needs, and vitamins or similar bodies required to render the diet adequate for maintenance. Since fats furnish 2½ times as much energy, pound for pound, as do proteins and carbohydrates (1 pound of fat furnishing about 4,000 calories, and 1 pound of protein or carbohydrate only about 1,800 calories), and since they are both wholesome and palatable, they are very commonly used to increase the energy value of the diet. Furthermore, they are especially useful as a source of energy where an excess of carbohydrates in the diet is to be avoided, as in cases of diabetes or certain forms of indigestion.

The consumption of some fat is apparently universal, although the amount eaten varies within rather wide limits. The diet in the polar regions represents one extreme, fat being used in quantity with meat, which is the chief article of diet. Though it seems to be less well known, it is nevertheless true, that fats are also eaten in considerable quantity in tropical countries, as is evident when one recalls the cocoanut oil of the South Sea Islands and the olive oil and other fats so much used in cookery in other regions characterized by a very warm climate. As everyone knows, dwellers in temperate regions use fat in the diet in many ways, which are determined largely by the prevailing food habits and the kinds of fat procurable, and in quantities which bear a more or less direct relation to the amount of physical work performed. Men engaged in severe work out-of-doors often eat large quantities of fatty foods. Workmen in lumber camps, for instance, relish a diet of pork and beans and other fat foods which would be too hearty for the office worker or clerk. It is difficult to obtain any definite figures for the quantity of fat eaten by the average person, but in 1,300 dietary studies of families, carried out among different races and in different countries, it was found that the average quantity of fat eaten was about 4½ ounces per person per day, the variation recorded being from 1½ to 13 ounces per person per day.

While fats and carbohydrates may replace each other to a considerable extent, recent investigations indicate that some carbohydrate supplied by the food or formed in the body from protein is essential for the combustion of fats in the body. Experts in nutrition and dietetics, therefore, believe that neither one should be used to the exclusion of the other.

Digestibility of Fats.

While all fats yield approximately equal amounts of energy when burned outside of the body, the energy which the body actually derives from each is dependent

upon its digestibility; that is, the portion which the body retains. The digestibility of a number of the individual fats has been determined, and the information at present available indicates that fats in general are very thoroughly digested; more so, indeed, than the animal or vegetable proteins and the starch occurring in the ordinary mixed diet. Such slight differences as have been observed in the digestibility of individual fats evidently correspond to differences in their melting points. Available evidence indicates that fats such as mutton fat, having a melting point higher than the body temperature, are less completely assimilated than those melting at a lower temperature, such as lard, butter, olive oil, and cottonseed oil. Also, it has been shown by feeding experiments with laboratory animals that animal and vegetable stearins (melting above body temperature) are only very slightly assimilated by the body when eaten alone, whereas, if mixed with palmitin and olein digestibility is increased because, no doubt, the mixture has a lower melting point than the stearin by itself.

The digestive disturbances often attributed to eating fat are probably due not so much to the inability of the body to digest the fat itself as to other factors, chief among which are bad cooking, overeating of foods containing fats, and rancidity. Laboratory experiments have shown that under some conditions, when fats are overheated, a chemical compound called acrolein is formed. This substance is especially irritating to the mucous membranes of the eyes, nose, throat, and it is well known to housekeepers that when fats are scorched vapors are given off which cause the eyes to water. If any of these vapors were occluded in the food during frying it seems probable that similar irritation would be produced on the delicate mucous membrane of the digestive tract. Obviously, such digestive disturbances cannot be cited as proofs of an incomplete digestion of fats.

Disagreeable sensations are experienced by some people after eating large quantities of foods such as meats containing much fat interspersed with the muscular tissue, and overrich puddings or salads. This may be explained by the fact that the digestive juices of the stomach have little solvent action on such nonemulsified fats and are thus hindered from digesting the protein which is covered by or very intimately mixed with the fat. The passing of the food through the pylorus into the small intestine is thus delayed until the fat has become separated from the lean portions by the enzymic

and mechanical action of the stomach. For this reason very fat meats, for instance, remain a longer time in the stomach than lean meats, although in the end they are as thoroughly digested. Similar digestive disturbances are sometimes experienced after eating fried foods (cooked without scorching) or foods in which fat is incorporated in such a manner that it prevents the digestive juices from acting upon the protein and carbohydrates. This delayed digestion is often mistaken for diminished or incomplete digestion. Fats which have become rancid, even though the rancidity is not sufficiently marked to influence the flavor very much, may cause digestive disturbances in some people. That this is not always the case is evidenced by the fact that there are some oriental people who eat rancid butter or oils apparently by preference.

It must be remembered that there are some persons whose systems can tolerate little if any food rich in fats. This, like the inability of some to eat strawberries, onions, or other foods, without digestive disturbances, is a matter of individual peculiarity.

Cocoanut Oil.

Cocoanut oil is prepared by pressing the dried meat of the cocoanut, which is known in the trade as copra. The crude oil is used for cooking purposes in tropical countries where the oil is prepared. In this condition the fat melts at about 70° F. and is a liquid in summer or in warm rooms during the winter. Refined cocoanut fat has little marked taste or odor if fresh and carefully prepared, and when solid is white in color. It has only recently come into use for culinary purposes but bids fair to become an important cooking fat. There are a number of cocoanut-oil products on the market, but these are not much used for home cooking. They are extensively used in bakeries and similar establishments, one reason being that they can be obtained with a considerable range of hardness, so that they are useful for many special purposes. For instance, one of the cocoanut fats is combined with sugar for use as a filling for some sweet crackers.

Corn Oil

Corn oil is prepared from the germ of the corn which is obtained as a by-product in the manufacture of corn-starch and glucose. The germs are ground and subjected to pressure which removes the oil. Some studies have been made of the use of corn oil for shortening purposes. Pastry made with mixtures of lard and corn oil in amounts not exceeding 10 per cent of the latter gave

results identical with those in which lard alone was used. When properly refined, corn oil is a wholesome product and is marked to some extent as a table oil. Large quantities of the crude oil are used for industrial purposes.

Miscellaneous Oils

In addition to the above-mentioned vegetable oils there are a number of others, such as soy bean, sunflower, sesame, and colza or rapeseed oils, which may be mentioned here. When carefully prepared these oils are of a yellow color and bland flavor and are used for food purposes in those countries where the particular seeds are obtainable in large quantities and the supply of other edible oils is limited. Walnut and similar nut oils, produced in some countries where the nut crops are large, are of good flavor and find a use for salad purposes.

There is some attempt being made to promote the utilization for table purposes of oils expressed from the kernels of the stones of such fruits as the apricot, peach, and cherry. Inasmuch as these stones are available in quantity as a waste product of the drying and canning of fruits, and the expression and refining of the oil may be done at small cost, they offer an additional source of edible oil.

Hardened Vegetable Fats

Hardened vegetable oils, technically known as hydrogenated oils, which have much the same consistency as lard or butter, have been put on the market within recent years. They are commercial possibilities owing to the fact that as a result of a long series of laboratory experiments processes have been discovered by which oils may be transformed into a product of any desired hardness by chemically adding hydrogen to them. This reaction takes place, for instance, when finely divided nickel, hydrogen, and the oil to be hardened are intimately mixed under proper conditions. The nickel does not enter into the composition of the hardened fat, but is removed and used repeatedly in the preparation of other batches. The hardened oils are generally white in color, have no appreciable odor or taste, and are less likely to become rancid than the original oil. A number of these fats, marketed under a variety of trade names, have proved popular and appear to be of quite wide application. This hardening process may also be of special value in the future utilization of some oils like the fish oils, which, because of objectionable flavors and odors, are not entirely suited for edible purposes in their natural state.

Nut Butters

Closely related to the nut oils mentioned above (see p. 13) are the nut butters prepared by grinding finely the meats of peanuts, almonds, or other nuts rich in fat, so as to produce an oily mass much like butter in consistency. Peanut butter is by far the most common of the nut butters. It is used chiefly as a filling for sandwiches, crackers, etc., though it finds some use in cooking. The nut butters can be made at home by grinding the whole nuts; a special nut-butter knife being furnished with some of the meat or food choppers. In addition to containing a large amount of fat, nut butters also contain considerable protein.

Avocado

Although its oil is not extracted for food purposes, the avocado, commonly called the alligator pear, a tropical fruit which is becoming better known in some of our markets, contains as high as 20 per cent of fat in the edible portion. When used in the diet this must be taken into consideration as a source of fat.

"The Selection of Edible Fats

In the selection of edible fats the principal consideration should be the purpose for which the fat is to be used, quality, price, and individual preference, since the energy which the body derives from different fats is about the same, and all are regarded as wholesome when of good quality. Custom, which influences to a considerable extent the choice of all foods, can, therefore, be subordinated to the more essential consideration of economy.

When purchasing fats for table use it should be remembered that they influence the wholesomeness of the foods with which they are served as well as the energy value and cost. The price of table fat depends largely upon their flavor and to a less extent on color, and in selecting them each housekeeper must decide how much she can afford to pay for these properties, since all the edible fats have practically the same energy value. In general it pays always to buy fats of such good quality that none will have to be thrown away through spoilage. In some instances a higher-priced article may be more economical in the end as, for example, clean, sanitary butter, as compared to a cheaper but less sanitary product. In some instances, where taste or flavor only is involved, a less expensive table fat may answer quite satisfactorily the purpose of a more expensive one. For example, the chief use of table oils is as an ingredient of salad dressings, and when a characteristic flavor is not

especially desired, good grades of cottonseed and peanut oils, having a bland flavor, may be used, when these are less expensive than the corresponding grades of olive oil.

Fats used for shortening, influence the appearance, flavor, texture, composition, keeping quality, and cost of the foods in which they are incorporated. In selecting shortening fats flavor and odor are to be considered, but attractive appearance and color are of less importance, since in cooking these are usually masked. Other qualities being equal, those culinary fats are more economical and desirable which possess the best keeping quality; that is, the least tendency to become rancid. Also, for general use shortening fats give the best results if they are neither too hard nor too soft to be easily mixed with the other ingredients of the dough at ordinary temperatures.

Fats used as a medium for cooking should be carefully selected, since they influence the flavor, appearance, and texture of the foods cooked in them, as is evident when one recalls the bad flavor imparted to fried foods by burned or rancid fat. Preference should be given to a fat which does not scorch too readily at the temperature most commonly used for frying. Experiments in the laboratory of the Office of Home Economics indicate that butter and lard scorch at a lower temperature than beef or mutton fats and cottonseed, peanut, or cocoanut oils. For this reason, therefore, the latter fats are preferable for deep frying, which requires high temperature.

Prejudice often exerts an influence on the selection of fats as well as other food materials, and these prejudices are often curious. For example, some persons who think that lard is not only indigestible, but also unwholesome, nevertheless enjoy bacon, which, of course, supplies pork fat in a different form. Such prejudices have little or no basis of fact and should not exert too much influence on the selection of any food material."

Exhibit No. 10, consists of a Can of Carnation Milk, which exhibit is filed herewith and made a part hereof.

Exhibit No. 11 consists of a large fibre shipping case containing cans of Carnation Milk, which exhibit is filed herewith and made a part hereof.

Exhibit No. 12 consists of a large fibre shipping case containing cans of "Hebe," which exhibit is filed herewith and made a part hereof.

Exhibit No. 14 is a paper showing the analysis of "Hebe" and Carnation Milk. (This Exhibit is set out in full in the record in connection with the testimony of Dr. John A. Wesener).

Exhibit No. 15 is a paper showing colored illustrations. (This Exhibit will be found set forth in the record in connection with the testimony of Dr. John A. Wesener).

Exhibit No. 16 is a letter dated July 21, 1916, from the Ohio Attorney General to Dr. C. L. Alsbury, Chief of the Bureau of Chemistry, U. S. Department of Agriculture, Washington, D. C. (This Exhibit is set out in full in the record at the conclusion of the evidence in chief of complainants.)

Exhibit No. 17 is a reply by the U. S. Department of Agriculture, Bureau of Chemistry, to the last mentioned letter (Exhibit No. 16). (Exhibit No. 17 is set out in full in the record at the conclusion of the evidence in chief of complainants.)

Defendants' Exhibits

Exhibit "A" consists of copy of specifications for evaporated milk sent to Monypeny-Hammond Co. by the Quartermaster's Department at Camp Willis.

Exhibit "B" is paper designated as Hoard's Dairyman, a weekly Journal devoted to Dairy Farming, dated July 21, 1916.

Exhibit "C" is a paper entitled "The Distribution in Plants of the Fat Soluble A, The Dietary Essential of Butter Fat."

Exhibit "D" is a copy of F. I. D. 158 issued April 2, 1915 by the U. S. Department of Agriculture.

(Defendants Exhibits "A", "B", "C", and "D" are all set out in full in the record in connection with the testimony of various witnesses).

It is hereby stipulated by and between the parties in the above entitled cause by their respective counsel as follows:

1. That the following physical exhibits be certified to the Supreme Court as such, but inasmuch as some of said physical exhibits are of a more or less perishable nature it is understood that appellant for the purpose of the argument in the Supreme Court may have the privilege of substituting fresh exhibits of like kind for any of such exhibits which may have deteriorated or spoiled at the time this case is reached for argument in the Supreme Court:

- Plaintiffs' Exhibit No. 1
- Plaintiffs' Exhibit No. 2
- Plaintiffs' Exhibit No. 3
- Plaintiffs' Exhibit No. 4
- Plaintiffs' Exhibit No. 4 $\frac{1}{2}$
- Plaintiffs' Exhibit No. 10
- Plaintiffs' Exhibit No. 11

Plaintiffs' Exhibit No. 12

2. That the following exhibits need not be printed, but may be certified as physical exhibits, and that only the extracts from said exhibits actually offered in evidence on the trial be printed as part of the printed record in the Supreme Court:

Plaintiffs' Exhibit No. 7

Plaintiffs' Exhibit No. 8

Plaintiffs' Exhibit No. 9

Plaintiffs' Exhibit No. 13

Defendants' Exhibit B

Defendants' Exhibit C.

A. T. Seymour,
of Counsel for Plaintiffs.

L. D. Johnson,
Counsel for Defendants.

The above and foregoing is all the evidence which is offered or introduced on the trial of the above entitled cause.

And, inasmuch as the matters above set forth do not fully appear of record in this suit, the plaintiffs tendered this statement of evidence and lodged the same in the Clerk's Office for examination on the 19th day of July, 1918, naming the 2nd day of August, 1918, when they would ask the court to approve said statement. Thereupon came the defendants by their solicitor and approved said statement of evidence, which approval is as follows, to wit:

"Columbus, Ohio, July 31, 1918.

On behalf of each of the defendants, we hereby acknowledge notice of the lodgment of the statement of evidence in the Clerk's Office of the District Court of the United States, Southern District of Ohio, Eastern Division, and of the time when plaintiffs will ask the court to approve said statement, and hereby consent that same may be approved.

L. D. Johnson,
Special Counsel for State of Ohio.
Solicitor for Defendants."

Thereupon said statement of evidence was presented to Honorable Howard C. Hollister, Judge of the District Court of the United States for the Southern District of Ohio, and it is found by said Judge to be true, complete and properly prepared, and is by said Judge approved and made a part of the record in said cause, and it is cer-

tified accordingly under the hand and seal of said Judge of this court this 1st day of August, A. D. 1918.

Hollister,
Judge of the District Court of the United
States for the Southern District of Ohio.

CLERK'S CERTIFICATE.

The United States of America, Southern District of Ohio,
Eastern Division, ss.:

I, B. E. Dille, clerk of the District Court of
the United States of America, within and for the divi-
sion and district aforesaid, do hereby certify that the
foregoing is a true and complete transcript of the pro-
ceedings had by and before said court in the above en-
titled cause, as the same appears of record and on file
in the clerk's office of said court.

In witness whereof, I have hereunto set my hand and
affixed the seal of said court at the city of Columbus,

Ohio, this 7th day of September, 1918.

B. E. Dille, Clerk;

By E. J. White Jr., Deputy.

FILE COPY

Office Supreme Court, U. S.

FILED

SEP 19 1918

JAMES D. MAHER,
CLERK.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1918.

No. 664.

THE IEBE COMPANY ET AL., APPELLANTS,

VS.

**NORMAN E. SHAW, SECRETARY OF AGRICULTURE OF OHIO,
ET AL.**

MOTION TO ADVANCE AND CONSENT THERETO.

BRODE B. DAVIS,
Solicitor for Appellants.

(26,750)

Charles E. Hughes,
Of Counsel.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1918.

No. 664.

THE HEBE COMPANY AND CARNATION MILK PRODUCTS COMPANY, CORPORATIONS, APPELLANTS,

vs.

NORMAN E. SHAW, SECRETARY OF AGRICULTURE OF OHIO;
THOMAS C. GAULT, CHIEF OF BUREAU OF DAIRY AND
FOODS OF THE BOARD OF AGRICULTURE OF OHIO; AND ALL
OTHER OFFICERS AND AGENTS CLAIMING TO ACT UNDER
THE AUTHORITY OF SAID THE BOARD OF AGRICULTURE OF
OHIO, OR OF THE SECRETARY OF AGRICULTURE OF OHIO,
APPELLEES.

MOTION TO ADVANCE.

Come now The Hebe Company and Carnation Milk Products Company, by Brode B. Davis, Esq., their counsel, and move this honorable court to advance the above-entitled case on the docket for oral hearing, and for ground for said motion show to the court that in view of the expiration of the

term of office of the appellee, Norman E. Shaw, as Secretary of Agriculture of Ohio, on the 13th day of July, 1919, and of Thomas C. Gault, as Chief of Bureau of Dairy and Foods at the discretion of said Secretary of Agriculture, this action will then abate and cannot thereafter be revived against the successors in office of said officials, and the appellants will be thereby deprived of a hearing of said cause before this court.

The appellee, Norman E. Shaw, was duly appointed Secretary of Agriculture of Ohio on the 13th day of July, 1917. Under and by virtue of section 1087, General Code of Ohio, as amended March 30, 1917, 107 O. L., 460, the term of office of the Secretary of Agriculture is for two years.

The appellee, Thomas C. Gault, Chief of Bureau of Dairy and Foods of the Board of Agriculture of Ohio, holds office under appointment of the Secretary of the Board of Agriculture of Ohio, as provided by section 1087 of the General Code of Ohio, and his term of office may be terminated at any time by the Secretary of Agriculture.

The appellees, who were defendants below, as officers of the State of Ohio, charged with the enforcement of the dairy, food and drink laws of the State of Ohio, served notice upon appellants and their customers in the State of Ohio, that the food product, "Hebe," composed of evaporated skimmed milk and cocoanut oil, could not be sold in the State of Ohio from and after the 9th day of July, 1918; that if, after that date, said product be found upon the market, appellees and their subordinates would cause prosecutions to be brought against all wholesalers, jobbers, distributors and retailers selling, offering or exposing for sale, said food product known as "Hebe" in the State of Ohio.

Appellees say that the food product known as "Hebe" is pure, wholesome, and nutritious as an article of human food, and is plainly labeled to show its true nature, and so labeled is not within the condemnation of any valid act of the Legislature of the State of Ohio, and may lawfully be sold and offered for sale in the said State of Ohio; and that if any

statute of the State of Ohio shall be construed as absolutely prohibiting the sale of said food product so labeled, then said laws of Ohio, and each and all of them, as so construed, are unconstitutional and void, because in violation of the Fourteenth Amendment of the Constitution of the United States.

For the reason that this case will not be reached for hearing and decided before the expiration of the term of office of the appellees, and in order that the rights of appellants may be adjudicated by this court before the abatement of this action upon the expiration of the terms of office of said appellees, appellants respectfully request that this action be advanced for hearing to as early a date as may be proper under the rules of this court.

This application is made in view of the language of Mr. Justice Day in the opinion, at page 451, in Pullman Company *vs.* Knott, 243 U. S., 447.

Respectfully submitted,

THE HEBE COMPANY,
CARNATION MILK
PRODUCTS COMPANY,

By BRODE B. DAVIS,

Charles E. Hughes, *Solicitor for Appellants.*

Of Counsel.—

COLUMBUS, O., Sept. 17, 1918.

We hereby acknowledge the receipt of a copy of the foregoing petition and consent that said case may be advanced for hearing.

JOS. MCGHEE,

Att'y Gen'l of Ohio;

L. D. JOHNSON,

Solicitors for Appellees.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1918.

THE HEBE COMPANY AND CARNATION MILK PRODUCTS COMPANY, CORPORATIONS, APPELLANTS,

vs.

NORMAN E. SHAW, SECRETARY OF AGRICULTURE OF OHIO;
THOMAS C. GAULT, CHIEF OF BUREAU OF DAIRY AND
FOODS OF THE BOARD OF AGRICULTURE OF OHIO; AND ALL
OTHER OFFICERS AND AGENTS CLAIMING TO ACT UNDER
THE AUTHORITY OF SAID THE BOARD OF AGRICULTURE OF
OHIO, OR OF THE SECRETARY OF AGRICULTURE OF OHIO,
APPELLEES.

AFFIDAVIT.

STATE OF OHIO,
Franklin County, ss:

Norman E. Shaw, being first duly sworn, says that he is Secretary of Agriculture of the State of Ohio; that his term of office began on the 13th day of July, 1917, and will expire on the 13th day of July, 1919, as provided in section 1087 of the General Code of Ohio as amended March 30, 1917, 107 O. L., 460.

That Thomas C. Gault was appointed Chief of Bureau of Dairy and Foods on the 1st day of August, 1917, and holds office by such appointment for an indeterminate length of time, and that the term of office of the said Thomas C.

Gault may be terminated at any time by the Secretary of Agriculture.

That affiant and the said Thomas C. Gault are the defendants named in the bill of complaint filed on the 18th day of July, 1918, by The Hebe Company and Carnation Milk Products Company in the District Court of the United States for the Southern District of Ohio, Eastern Division.

N. E. SHAW.

Sworn to before me by the said Norman E. Shaw, and by him subscribed in my presence, this 17th day of September, 1918.

[SEAL.]

AUGUSTUS T. SEYMOUR,

Notary Public, Franklin County, Ohio.

[Endorsed:] File No. 26,750. Supreme Court U. S., October term, 1918. Term No. 664. The Hebe Company et al., appellants, vs. Norman E. Shaw, Sec'y, &c., et al. Motion to advance, proof of service of same, and affidavit of Norman E. Shaw in support thereof. Filed September 19, 1918.

NOV 23 1918

JAMES D. MAHER,
CLERK

IN THE
Supreme Court of the United States,

OCTOBER TERM, 1918

No. 664.

THE HEBE COMPANY and CARNATION MILK PRODUCTS
COMPANY, CORPORATIONS,

Plaintiffs in error,

vs.

NORMAN E. SHAW, SECRETARY OF AGRICULTURE OF
OHIO, THOMAS C. GAULT, CHIEF OF BUREAU OF
DAIRY and FOODS OF THE BOARD OF AGRICULTURE
OF OHIO, and OTHER OFFICERS and AGENTS CLAIM-
ING TO ACT UNDER THE AUTHORITY OF SAID THE
BOARD OF AGRICULTURE OF OHIO, OR OF THE SEC-
RETARY OF AGRICULTURE OF OHIO,

Defendants in error.

APPEAL FROM THE DISTRICT COURT OF THE UNITED
STATES, SOUTHERN DISTRICT OF OHIO,
EASTERN DIVISION.

Brief and Argument for Appellants.

BRODE B. DAVIS,
THOMAS E. LANNEN,
AUGUSTUS T. SEYMOUR,

Attorneys for Appellants.

BRODE B. DAVIS, ✓
THOMAS E. LANNEN, ✓
AUGUSTUS T. SEYMOUR, ✓
CHARLES E. HUGHES, ✓

Of Counsel.

Subject Index.

	PAGES
STATEMENT	1
ERRORS RELIED UPON	7
BRIEF OF ARGUMENT	12

POINTS

- I. The food product "Hebe," being a pure and wholesome product, plainly and fairly labeled, is not within the condemnation of the legislation of the State of Ohio, and may be lawfully sold in said State 15-27
- II. If the legislation in question can be deemed to be applicable, the prohibition of the sale of this product in Ohio by the appellants' customers is an unconstitutional interference with interstate commerce. The appellants are entitled to be protected against interference with their customers' sales in the original packages. The prohibition of the statute is repugnant to the Federal Food and Drugs Act 37-56
- III. The prohibition by the legislation in question, as construed by the court below, of the sale within the State of Ohio of this product, concededly

Pages.

pure, wholesome and nutritious, is invalid as a deprivation of liberty and property, and a denial of the equal protection of the laws, contrary to the Fourteenth Amendment	56-71
IV. The decree should be reversed and the cause remanded with direction to enter a decree in accordance with the prayer of the bill of complaint	72
APPENDIX	73

CASES.

	<i>Pages.</i>
Adams <i>v.</i> Tanner, 244 U. S. 590.....	57
Allgeyer <i>v.</i> Louisiana, 165 U. S. 578.....	57
Armour <i>v.</i> North Dakota, 240 U. S. 510....	65
Austin <i>v.</i> Tennessee, 179 U. S. 343.....	44
Bolles <i>v.</i> Outing Co., 175 U. S. 262.....	24
Brown <i>v.</i> Maryland, 12 Wheat. 419.....	44
Caha <i>v.</i> United States, 152 U. S. 211.....	18
Collins <i>v.</i> New Hampshire, 171 U. S. 30	40, 42
Commonwealth <i>v.</i> Boston White Cross Milk Co., 209 Mass. 30.....	24, 26
Corn Products Refining Co. <i>v.</i> Weigle, 221 Fed. 998	55
Courtice Brothers Co. <i>v.</i> Weigle, District Court of United States, Western Dis- trict of Wisconsin, October 30, 1916.....	55
Crowl <i>v.</i> Commonwealth of Pennsylvania, 242 U. S. 153.....	27
Dorsey <i>v.</i> Texas, 38 Tex. Crim. Rep. 527...	70
Erie R. R. Co. <i>v.</i> New York, 233 U. S. 671..	46
Ex-parte Hayden, 147 Cal. 649.....	68
Genessee Valley Milk Products Co. <i>v.</i> J. H. Jones Corporation, 143 App. Div. (N. Y.) 624	25
Gulf, Colorado & Santa Fe R'way Co. <i>v.</i> Hefley, 158 U. S. 98.....	46
Hipolite Egg Co. <i>v.</i> United States, 220 U. S. 45	55
Hutchinson Ice-cream Co. <i>v.</i> Ohio, 242 U. S. 153	27, 30

	<i>Pages.</i>
Leisy <i>v.</i> Harden, 135 U. S. 100.....	44
McDermott <i>v.</i> Wisconsin, 228 U. S. 115..	47, 48, 53
	54, 55, 56
May <i>v.</i> New Orleans, 178 U. S. 496.....	44
Northern Pacific R'wy Co. <i>v.</i> Washington, 222 U. S. 370.....	46
People <i>v.</i> Biesecker, 169 N. Y. 53.....	65
People <i>v.</i> Excelsior Bottling Works, 184 App. Div. 45.....	70
Plumley <i>v.</i> Massachusetts, 155 U. S. 462....	43
Powell <i>v.</i> Pennsylvania, 127 U. S. 678.....	40, 57, 58, 59, 61, 62
Price <i>v.</i> Illinois, 238 U. S. 449.....	54, 55, 62
Purity Extract Co. <i>v.</i> Lynch, 226 U. S. 192..	54
Rhodes <i>v.</i> Iowa, 170 U. S. 412.....	44
Rigbers <i>v.</i> City of Atlanta, 7 Ga. App. 411..	69
Rose <i>v.</i> State, 11 Ohio Cir. Ct. Rep. 87, 1 Ohio C. D. 72.....	33
Savage <i>v.</i> Jones, 225 U. S. 501.....	37, 44, 46, 49
Schollenberger <i>v.</i> Pennsylvania, 171 U. S. 1, 40, 43, 44	40, 43, 44
State <i>v.</i> Crescent Creamery Co., 83 Minn. 284	24
State <i>v.</i> Hanson, 118 Minn. 85.....	67
The J. M. Sealtz Co. <i>v.</i> The State of Ohio, Court of Appeals for Allen County, Ohio, decided December 28, 1917.....	36
The Toledo, Wabash & Western R'way Co. <i>v.</i> City of Jacksonville, 67 Ill. 37.....	67
Towne <i>v.</i> Eisner, 245 U. S. 418.....	7
United States <i>v.</i> Frank, 189 Fed. 195.....	16
United States <i>v.</i> 779 Cases of Molasses, 174 Fed. 325	46
Waite <i>v.</i> Macy, 246 U. S. 606.....	71

IN THE
Supreme Court of the United States.

October Term, 1918

No. 664.

THE HEBE COMPANY and CARNATION MILK
PRODUCTS COMPANY, CORPORATIONS,
Plaintiffs in error,

vs.

NORMAN E. SHAW, SECRETARY OF AGRICULTURE OF
OHIO, THOMAS C. GAULT, CHIEF OF BUREAU OF
DAIRY AND FOODS OF THE BOARD OF AGRICULTURE
OF OHIO, and OTHER OFFICERS and AGENTS CLAIM-
ING TO ACT UNDER THE AUTHORITY OF SAID THE
BOARD OF AGRICULTURE OF OHIO, OR OF THE SECRE-
TARY OF AGRICULTURE OF OHIO,

Defendants in error.

APPEAL FROM THE DISTRICT COURT OF
THE UNITED STATES, SOUTHERN
DISTRICT OF OHIO, EASTERN
DIVISION.

**BRIEF AND ARGUMENT FOR
APPELLANTS.**

Statement of the Case.

This is a bill for injunction filed by appellants
to enjoin certain officers of Ohio from prohibiting
the sale of "Hebe" in that state.

"Hebe" is sold by appellants in most of the States of the Union. It is a food product which is a compound of skimmed milk and cocoanut oil, the finished product "Hebe" consisting of evaporated skimmed milk and about six per cent. of cocoanut oil. It contains no other ingredients, and is a wholesome article of food, containing nothing of a deleterious nature. (*Opinion*, District Court Rec., p. 38.)

"Hebe" is manufactured by appellants in plants located in Wisconsin and elsewhere, but none of it is manufactured in Ohio. In the course of interstate commerce appellants sell "Hebe" to wholesale dealers, jobbers and distributors, and these latter sell in turn to retail dealers and others, and the retailers sell to the consumer.

The stipulation with respect to the course of trade is as follows (Rec. pp. 49, 50) :

"3. Plaintiffs are engaged in manufacturing and selling outside of the State of Ohio, and shipping to the State of Ohio, the food product described in the bill of complaint filed herein.

"4. Plaintiffs do business in said food product with wholesale dealers, jobbers and distributors, residing and doing business in the State of Ohio.

"5. Plaintiffs receive orders for said food product from said wholesale dealers, jobbers and distributors in the State of Ohio, and then fill said orders by shipping said product from plaintiffs' places of business outside of the State of Ohio to said wholesale dealers, jobbers and distributors in the State of Ohio; and said wholesale dealers, jobbers and distributors then sell said product to retail dealers (and in some instances directly to large consumers such as restaurants and hotels) in the State of Ohio; and said retail dealers sell the said food product direct to consumers in

the State of Ohio, and offer it for sale to consumers, and expose it for sale to consumers, and have it in their possession with intent to sell to consumers, in the said State of Ohio, (the place of acceptance by plaintiffs of said orders may be established by oral proof)."

It was also stipulated (Rec. pp. 65, 66) :

"that when 'Hebe' is shipped into Ohio in less than carload lots, said fibre shipping cases are marked only with the name of the consignee and such other data as is necessary to insure proper identification of the product and delivery of the shipment; but that when shipped in carload lots such cases are not marked with the name of the consignee; that when said shipping cases are received by a retail dealer in the State of Ohio, the individual cans, labeled with the label shown by the bill of complaint, are removed from said shipping cases by such retail dealer and exposed for sale on the shelves of said retail dealer as individual units, and in the great majority of instances are purchased by consumers one can at a time."

Both the large and small size tin cans bear a uniform label as shown below :

NET CONTENTS 1 LB. AVOIRDUPOIS

PATENT APPLIED FOR

HEBE



**A COMPOUND OF MILK
EVAPORATED SKIMMED MILK
AND VEGETABLE FAT**

CONTAINS 6% VEGETABLE FAT,
24% TOTAL SOLIDS

MANUFACTURED AT JEFFERSON, WIS.
THE HEBE COMPANY
GENERAL OFFICE, SEATTLE, WASH.

NET CONTENTS 1 LB. AVOIRDUPOIS

PATENT APPLIED FOR

HEBE



**A COMPOUND OF MILK
EVAPORATED SKIMMED MILK
AND VEGETABLE FAT**

CONTAINS 6% VEGETABLE FAT,
24% TOTAL SOLIDS

MANUFACTURED AT JEFFERSON, WIS.
THE HEBE COMPANY
GENERAL OFFICE, SEATTLE, WASH.

FOR COFFEE AND
FOR CEREALS
FOR BAKING AND
FOR COOKING

FOR COFFEE AND
FOR CEREALS
FOR BAKING AND
FOR COOKING

"Hebe" was first introduced into Ohio early in 1915. At that time a label was used differing somewhat from the present label. Appellees' predecessors in office raised certain objections to the form of the label at that time, and to meet these objections the present label was adopted and was afterwards formally approved by the appellees' predecessors in office. (Rec. pp. 10, 11.)

Relying upon the approval of the label, appellants began at once to extend vigorously the sale of "Hebe" in Ohio and had succeeded in building up a large business therein, when the further sale of the product was absolutely prohibited by the appellees.

Section 12725 of the General Code of Ohio reads as follows:

"Section 12725. Whoever manufactures, sells, exchanges, exposes or offers for sale or exchange, condensed milk unless it has been made from pure, clean, fresh, healthy, unadulterated and wholesome milk, from which the cream has not been removed and in which the proportion of milk solids shall be the equivalent of twelve per cent. of milk solids in crude milk twenty-five per cent of such solids being fat, and unless the package, can or vessel containing it is distinctly labeled, stamped or marked with its true name, brand, and by whom and under what name made, shall be fined not less than fifty dollars nor more than two hundred dollars, and, for each subsequent offense, shall be fined not less than one hundred dollars nor more than five hundred dollars and imprisoned not less than ten days nor more than ninety days."

The appellees construe the above section to apply to "Hebe" and insist that under this statute "Hebe" cannot be lawfully sold in Ohio.

There are other sections of the Ohio Code to which the District Court referred in its Opinion

(Rec. pp. 39, 40), and which we will discuss briefly later, but Section 12725 is the section upon which the appellees relied on the trial of the case, and upon which the Court based its Opinion and Decree.

Appellants filed their bill of complaint, asking an injunction against appellees to restrain them from interfering with the sale of "Hebe" in Ohio. The bill alleges that Section 12725 of the General Code of Ohio (and no other statute of that State) when properly construed does not apply to a product like "Hebe", plainly labeled to show its true character and composition; that if said section can be so construed it is unconstitutional and void as amounting to an unwarrantable prohibition of the sale of a wholesome article of food and not a mere regulation within the power of the State; that appellants in shipping "Hebe" into Ohio and their customers in selling said product are under the protection of the interstate commerce clause of the Constitution of the United States; that the Federal Food and Drugs Act controls shipments in interstate commerce and the sale in the original package, as therein defined, of products so shipped; that "Hebe" when shipped into Ohio and sold there complies in all respects with the Federal Food and Drugs Act and is lawfully sold in the original packages; and that the said Section 12725 of the General Code of Ohio if construed to apply to the sale of "Hebe" is unconstitutional and void, because said section so construed is arbitrary, unduly discriminatory and confiscatory, deprives the appellants of their property without due process of law and denies them the equal protection of the laws in violation of the Fourteenth Amendment of the Constitution of the United States (Rec. pp. 14-17).

The defendants admit that unless restrained

“they will arrest, cause to be arrested and prosecute or assist in arresting and prosecuting, each and all of the customers of plaintiffs who may sell, exchange, expose or offer for sale or exchange” the said product (Rec. pp. 25-26).

Upon final hearing appellants’ bill was dismissed. In dismissing the bill the court filed an opinion upholding the construction of said Section 12725 contended for by appellees and sustaining the constitutionality of said section as so construed. As the constitutional questions were involved, appeal lies directly to this court (Judicial Code, Sec. 238) and the entire case is here. *Towne v. Eisner*, 245 U. S., 418, 426. The evidence consisted of oral testimony taken in open court and various exhibits, all of which are preserved in the record by a certificate of evidence.

The appellants assign as error the action of the court in dismissing their bill of complaint. A specification of the errors relied upon is as follows (Rec. pp. 30-34):

Errors Relied Upon.

I.

The court erred in that in and by said decree it dismissed the plaintiffs’ bill of complaint.

II.

The court erred in that in and by said decree it holds that Section 12725 of the General Code of the State of Ohio prohibits the sale of the compound “Hebe” in the State of Ohio.

III.

The court erred in that in and by said decree it holds that the laws of the State of Ohio prohibit the sale of the compound “Hebe” in the State of Ohio.

IV.

The court erred in that although in and by said decree it holds that Section 12725 of the General Code of the State of Ohio prohibits the sale of the compound "Hebe" in the State of Ohio, it failed to hold in and by said decree that said Section 12725, so construed, is in violation of the Fourteenth Amendment to the Constitution of the United States in that said Section 12725 deprives the plaintiffs of liberty and property without due process of law, and denies to the plaintiffs equal protection of the law.

V.

The court erred in that although in and by said decree it holds that the laws of the State of Ohio prohibit the sale of the compound "Hebe" in the State of Ohio, it failed to hold in and by said decree that said laws of the State of Ohio, so construed, are in violation of the Fourteenth Amendment to the Constitution of the United States, in that said laws deprive the plaintiffs of liberty and property without due process of law and deny to the plaintiffs the equal protection of the law.

VI.

The court erred in that although in and by said decree it holds that Section 12725 of the General Code of the State of Ohio prohibits the sale of the compound "Hebe" in the State of Ohio, it failed to hold in and by said decree that said Section 12725, so construed, arbitrarily and unjustly discriminates against said compound "Hebe" by prohibiting the distribution and sale thereof under a conspicuous label which shows the true character of said product, such prohibition being based upon the ground that said product "Hebe" is composed in part of condensed or evaporated skimmed milk, while at the same time the laws of the State of Ohio permit the sale without restriction of uncondensed or unevaporated skimmed milk if the same be labeled "skimmed milk" as the same is specified by said laws, and that by reason of such arbitrary and unjust discrimination said Section 12725 is in

violation of the Fourteenth Amendment of the Constitution of the United States in that it deprives the plaintiffs of liberty and property without due process of law and denies to the plaintiffs the equal protection of the law.

VII.

The court erred in that although in and by said decree it holds that the laws of the State of Ohio prohibit the sale of the compound "Hebe" in the State of Ohio, it failed to hold in and by said decree that said laws of Ohio so construed arbitrarily and unjustly discriminate against said compound "Hebe" by prohibiting the distribution and sale thereof under a conspicuous label, which shows the true character of said product, such prohibition being based upon the ground that said product "Hebe" is composed in part of condensed or evaporated skimmed milk, while at the same time the laws of the State of Ohio permit the sale without restriction of unevaporated or uncondensed skimmed milk if the same be labeled "skimmed milk", as specified by said laws, and that by reason of such arbitrary and unjust discrimination said laws of the State of Ohio are in violation of the Fourteenth Amendment of the Constitution of the United States in that they deprive the plaintiffs of liberty and property without due process of law and deny to the plaintiffs the equal protection of the law.

VIII.

The court erred in that although in and by said decree it holds that Section 12725 of the General Code of Ohio prohibits the sale of the compound "Hebe" in the State of Ohio, notwithstanding the fact that said "Hebe" is a pure and wholesome food product and is sold under a label describing such product, it failed to hold in and by said decree that said Section 12725, so construed, is in violation of the Fourteenth Amendment of the Constitution of the United States in that said Section 12725 deprives the plaintiffs of liberty and property without due process of law and denies to the plaintiffs the equal protection of the law.

IX.

The court erred in that although in and by said decree it holds that the laws of the State of Ohio prohibit the sale of the compound "Hebe" in the State of Ohio, notwithstanding the fact that said "Hebe" is a pure and wholesome food product and is sold under a label clearly describing said product, it failed to hold in and by said decree that such laws of Ohio, so construed, are in violation of the Fourteenth Amendment of the Constitution of the United States in that said laws deprive the plaintiffs of liberty and property without due process of law and to deny the plaintiffs the equal protection of the law.

X.

The court erred in that in and by said decree, it failed to hold that under the laws of the United States governing the shipment of food and drug products in interstate shipments, known as The Food and Drugs Act, approved June 30th, 1906 (34 U. S. Statutes at Large, page 768), the product "Hebe" labeled as set forth in the bill of complaint and as proved upon the trial of this cause, may be lawfully shipped by plaintiffs into the State of Ohio from without the State of Ohio, and that the plaintiffs and their customers and dealers in the State of Ohio may lawfully sell the same in that state in the original and individual cans in which the plaintiffs ship the said product into the State of Ohio.

XI.

The court erred in that it failed to hold in and by said decree that any prohibition in said Section 12725 of the General Code of Ohio of the right of the plaintiffs and their customers and dealers in the State of Ohio to sell the product "Hebe" in the original and individual cans in which the plaintiffs ship the product into the State of Ohio from without the State of Ohio, in the manner described in the plaintiffs' bill of complaint and as proved upon the trial of this case, is an unlawful interfer-

ence with the Interstate Commerce Laws of the United States.

XII.

The court erred in that in and by said decree it failed to hold that any prohibition in the laws of the State of Ohio of the right of the plaintiffs and their customers and dealers in the State of Ohio to sell the product "Hebe" in the original cans in which the plaintiffs shipped the product into the State of Ohio from without the State of Ohio in the manner described in plaintiffs' bill of complaint and proved upon the trial of this cause, is an unlawful interference with the Interstate Commerce Laws of the United States.

XIII.

The court erred in that in and by said decree it failed to hold that the original and individual cans in which the plaintiffs ship the said product "Hebe" into the State of Ohio from without the State of Ohio in the manner described in the plaintiffs' bill of complaint and as proved upon the trial of this cause, said cans being labeled as required by the National Food and Drugs Act, approved June 30th, 1906, (34 U. S. Statutes at Large, page 768) are the original packages within the meaning, intent and effect of said National Food and Drugs Act; and that any prohibition in the laws of the State of Ohio of the right of plaintiffs and their customers and dealers in the State of Ohio to sell the product "Hebe" in such original and individual cans is in violation of said National Food and Drugs Law, and such laws of Ohio are unconstitutional and void in that they are in conflict with said National Food and Drugs Law and the national regulations duly and regularly made thereunder.

XIV.

The court erred in that in and by said decree it failed to hold that Section 12725 of the General Code of Ohio prohibiting the sale by the plaintiffs

and their customers and dealers of the product "Hebe" in the State of Ohio is void because the same is unjust, arbitrary, unduly discriminating and confiscatory.

BRIEF OF ARGUMENT.

I.

The food product "Hebe," being a pure and wholesome product, plainly and fairly labeled, is not within the condemnation of the legislation of the State of Ohio, and may be lawfully sold in said State.

United States v. Frank, 189 Fed. 195, 198.

Caha v. United States, 152 U. S. 211, 221.

Hutchinson Ice Cream Co. v. Iowa,

Crowl v. Commonwealth of Pennsylvania,
242 U. S. 153.

Commonwealth v. Boston White Cross Milk Co., 209 Mass. 30.

Genesee Valley Milk Products Co. v. J. H. Jones Corporation, 143 App. Div. (N. Y.) 624, 626, 627.

State v. Crescent Creamery Co., 83 Minn. 284.

Rose v. State, 11 Ohio Civ. Ct. Rep. 87, 1 Ohio C. D. 72.

The J. M. Sealtz Company v. The State of Ohio, decided by Ct. of Appeals for Allen County, Ohio, December 28, 1917.

The statute in question is a penal statute and it should not be extended by construction.

Bolles v. Outing Company, 175 U. S. 262,
265.

*Commonwealth v. Boston White Cross
Milk Co.*, *supra*.

The statute does not embrace a compound such
as "Hebe."

Hutchinson Ice Cream Co. v. Iowa, *supra*.

II.

If the legislation in question can be deemed to be applicable, the prohibition of the sale of this product in Ohio is an unconstitutional interference with interstate commerce. The appellants are entitled to be protected against interference with sales in the original packages. The prohibition of the statute is repugnant to the Federal Food and Drugs Act.

Savage v. Jones, 225 U. S., 501, 519, 520.

Schollenberger v. Pennsylvania, 171 U. S.,

1.

Collins v. New Hampshire, 171 U. S., 30.

Brown v. Maryland, 12 Wheaton, 419.

Leisy v. Hardin, 135 U. S. 100.

Rhodes v. Iowa, 170 U. S. 412, 424.

May v. New Orleans, 178 U. S. 496.

Austin v. Tennessee, 179 U. S. 343.

Gulf, Colorado & Santa Fe R'y Co. v.

Hefley, 158 U. S., 98.

*Northern Pacific Railway Co. v. Washing-
ton*, 222 U. S., 370, 378.

Eric R. R. Co. v. New York, 233 U. S., 671,
683.

McDermott v. Wisconsin, 228 U. S., 115,
132-137.

Corn Products Refining Co. v. Weigle, 221
Fed., 998.

United States v. 779 Cases of Molasses,
174 Fed. 325.

Courtice Brothers Co. v. Weigle, District
Court of U. S. Western District of
Wisconsin, decided October 30, 1916.

III.

The prohibition by the legislation in question, as construed by the court below, of the sale within the State of Ohio of this product, concededly pure, wholesome and nutritious, is invalid as a deprivation of liberty and property, and a denial of the equal protection of the laws, contrary to the Fourteenth Amendment.

Allgeyer v. Louisiana, 165 U. S., 578, 589.

Adams v. Tanner, 244 U. S., 590.

Powell v. Pennsylvania, 127 U. S., 678.

Price v. Illinois, 238 U. S., 446.

Armour v. North Dakota, 240 U. S., 510.

People v. Biesecker, 169 N. Y., 53.

The Toledo, Wabash and Western Railway Co. v. City of Jacksonville, 67 Ill.,
37.

State v. Hanson, 118 Minn., 85.

Ex-parte Hayden, 147 Cal. 649.

Rigbers v. Atlanta, 7 Ga. App., 411.

Dorsey v. Texas, 38 Tex. Crim. Rep. 527,
40 L. R. A. (Texas Ct. App., 201)).

People v. Excelsior Bottling Works, 184
App. Div. (N. Y.) 45.

Waite v. Macy, 246 U. S., 606.

ARGUMENT.

I.

THE FOOD PRODUCT "HEBE," BEING A PURE AND WHOLESOME PRODUCT, PLAINLY AND FAIRLY LABELED, IS NOT WITHIN THE CONDEMNATION OF THE LEGISLATION OF THE STATE OF OHIO, AND MAY BE LAWFULLY SOLD IN SAID STATE.

Before considering the constitutional questions, it is of first importance to determine what is the proper construction of Section 12725 of the Ohio General Code. We contend that this section, properly construed, does not prohibit the sale of a compound like "Hebe" consisting of evaporated or condensed skimmed milk and cocoanut oil. The terms "evaporated" and "condensed" are synonymous as applied to milk (Opinion, District Court, Rec. p. 38; Food Inspection Decision No. 158, Secretary of Agriculture, Rec. p. 125).

In order to construe the above section as an absolute prohibition of the sale of "Hebe," it is necessary to say, first, that the sale of condensed skimmed milk is absolutely prohibited; and secondly, that the sale of any product containing condensed skimmed milk as one of its constituents is, on that account, likewise prohibited in Ohio.

Is it the intention of Section 12725 absolutely to prohibit the sale of condensed skimmed milk in Ohio? The evil to be remedied by the statute was the sale of condensed skimmed milk *as and for condensed whole milk*. The section in question was designed to correct that evil. We cannot believe that it was intended by this section to absolutely prohibit the sale of such a wholesome and common article as condensed skimmed milk.

The Ohio laws affirmatively recognize the wholesomeness of skimmed milk by providing for its

sale under proper labelling. Section 12720 of the General Code of Ohio reads as follows:

“Whoever sells, exchanges, delivers or has in his custody or possession with intent to sell, exchange or deliver, milk from which the cream or part thereof has been removed, unless in a conspicuous place above the center and upon the outside of each vessel, can or package, from which or in which such milk is sold, the words ‘skimmed milk’ are distinctly marked in uncondensed Gothic letters not less than one inch in length, shall be fined not less than fifty dollars nor more than two hundred dollars.”

It is well known that the process of condensing milk, either skimmed or whole milk, consists in simply evaporating some of the surplus water, without eliminating from the residue any of the food value and without otherwise changing or adding anything to the product (Food Inspection Decision No. 158, Secretary of Agriculture, Rec. p. 125). It follows that if skimmed milk (not condensed) is wholesome, then condensed or evaporated skimmed milk is likewise wholesome.

By an Act passed by the Congress of the United States on March 3, 1903, c. 1008 (32 Stat. 1158) a sum of money was appropriated to the U. S. Department of Agriculture “to enable the Secretary of Agriculture in collaboration with the Association of Official Agricultural Chemists, and such other experts as he may deem necessary to establish standards of purity for food products and to determine what are regarded as adulterations therein, for the guidance of the officials of the various states and of the courts of justice * * *.” This gave the Secretary of Agriculture authority to establish standards of purity for food products.

United States v. Frank, 189 Fed. 195, 198.

Under authority of that Act the Secretary of Agriculture on June 26, 1906, recognized and defined condensed skimmed milk as follows (Circular No. 19, June 26, 1906, Secretary of Agriculture) :

“*Condensed skimmed milk* is skimmed milk from which a considerable portion of water has been evaporated” (Page 6 of the Circular).

Section 3 of the Food and Drugs Act of June 30th, 1906 (34 Stat. 768) confers power upon the Secretary of the Treasury, the Secretary of Agriculture and the Secretary of Commerce and Labor to make uniform rules and regulations for carrying out the provisions of that Act, and its enforcement is placed under the jurisdiction of the Secretary of Agriculture. Acting under this authority the Secretary of Agriculture, under date of March 26, 1915, issued Food Inspection Decision No. 158 (Rec. p. 125), which adopts and proclaims the following definition and standard for condensed milk as a guide for the officials of that Department in enforcing the Food and Drugs Act aforesaid :

“*Condensed milk, evaporated milk, concentrated milk*, is the product resulting from the evaporation of a considerable portion of the water from the whole, fresh, clean, lacteal secretion obtained by the complete milking of one or more healthy cows, properly fed and kept, excluding that obtained within fifteen days before and ten days after calving, and contains, all tolerances being allowed for, not less than twenty-five and five-tenths per cent (25.5%) of total solids and not less than seven and eight-tenths per cent (7.8%) of milk fat.”

Acting under this authority, the Secretary of Agriculture also, under date of March 16, 1917, by Food Inspection Decision No. 170, adopted and

proclaimed the following definition and standard for condensed skimmed milk as a guide for the officials of that Department in enforcing the Food and Drugs Act aforesaid:

"Condensed Skimmed Milk, evaporated skimmed milk, concentrated skimmed milk, is the product resulting from the evaporation of a considerable portion of the water from skimmed milk and contains, all tolerances being allowed for, not less than twenty per cent (20%) of milk solids."

So, also, the Secretary of Agriculture, under the same authority, established and proclaimed the following standard for cocoanut oil (Circular No. 19, June 26, 1906, Secretary of Agriculture):

"Cocoanut oil is the oil obtained from the kernels of the cocoanut (cocos nucifera L.) and subjected to the usual refining processes and free from acidity" (Page 16 of the circular).

And the Secretary of Agriculture by Food Inspection Decision No. 169, under date of January 9, 1917, adopted and proclaimed the following definition and standard for cocoanut oil as a guide for the officials of his Department in enforcing the Food and Drugs Act:

"Cocoanut oil, copra oil, is the edible oil obtained from the kernels of the cocoanut (cocos nucifera L. or cocos butyracea L.)."

The Court will take judicial notice of these standards (*Caha v. United States*, 152 U. S., 211, 221). Therefore, it is submitted, that condensed skimmed milk and cocoanut oil being thus standardized as wholesome food products by the United States Department of Agriculture should be judicially recognized as such.

The food standards established by the Secretary of Agriculture have been adopted very generally throughout the country. We have set forth in an Appendix to this brief the action of a large number of States which have either adopted or provided for the adoption of the Federal standards generally for food products, or have expressly adopted or provided for the adoption of the Federal standard as to condensed skimmed milk (Appendix A *infra*, pp. 73 *et seq.*). Where the States have adopted the Federal standards generally, this action, of course, has the effect of adopting this standard both as to skimmed milk and cocoanut oil.

There is no claim that the food product "Hebe" or either of its ingredients is impure or unwholesome. The following admission was made upon the trial (Rec. p. 66):

"It was further admitted by defendants through their counsel in open court that Hebe is pure in the sense that there is no dirt or any impurity in it, or anything except skimmed milk and cocoanut oil, and that they have no evidence to show that there is anything in the way of impurities coming into it in the factory; and it is admitted by defendants through their counsel that the superintendent and the manager of the complainants' manufacturing plant who are present in court would, if called as witnesses, testify that the manufacturing processes are all clean and pure, and that the product Hebe when it comes through is tested and found to be clean and pure."

In its opinion the Court below says:

"*There is no claim that the product, or either of its ingredients, is impure or unwholesome*" (Rec. p. 38).

The food value of skimmed milk is well known and has been officially recognized in the State of Ohio. The Ohio Agricultural Experiment Station in its bulletin of December, 1916, says (Rec. pp. 135, 141):

"Skimmilk of average quality contains about 3.7 percent protein and 5.1 percent milk sugar. Authorities are generally agreed that both these substances as found in skimmilk are at least fully as digestible and useful to our bodies as those obtainable from any other source. Skimmilk, then, aside from being somewhat low in flavor is a most excellent form of human food, containing in large quantity the very substance which when purchased in other foods is the most expensive ingredient of our diet. It will readily be seen what a great economic loss is caused by throwing away or feeding to animals so valuable a food, and one obtained in common with other animal foods at as great a cost; yet, many thousands of gallons suffer this fate daily in Ohio alone. * * * Skimmilk, then, at 5 cents or even 10 cents per quart would be an extremely economical food, and having a nutritive ratio of 1:1.4 would constitute the cheapest and one of the best sources of the extra protein needed to balance a vegetable diet. Skimmilk also contains an abundant supply of mineral matter which is often sadly deficient in our diets. While devoid of the high flavor and aroma characteristic of butterfat, skimmilk still possesses a delicate and pleasing flavor due to its milk sugar and is in itself to those whose taste has not been spoiled by highly flavored dainties a palatable as well as a highly nutritious food."

Moreover, the cocoanut oil used in "Hebe" is obtained from the kernels or meat of the cocoanut and is of the finest quality, and absolutely pure. (Rec. 57.) The consumption of cocoanut oil as a

food in America alone amounts to five million pounds monthly, and one firm in London, England, handles twenty-five hundred tons of cocoanut oil a week for edible purposes (*id.*). With these facts undisputed in the record, we think it permissible to say that no claim is made nor can be made that cocoanut oil is unwholesome or deleterious to health.

The U. S. Department of Agriculture in Bulletin 505, dated February 13, 1917 (Rec. pp. 130-135), summarized the results of experiments as to the digestibility and wholesomeness of cocoanut oil. This official bulletin states (Rec. p. 131) :

“Cocoanut oil is obtained from the fruit of the palm *Cocos nucifera*. In recent years it has become rather widely known and is assuming considerable importance as a culinary and table fat. It is used in the commercial baking trade more commonly than it is for household purposes and to some extent in the preparation of butter substitutes.”

And after referring to a number of experiments conducted by the Department with cocoanut oil it was concluded (Rec. p. 134) :

“The protein and carbohydrates were 64.5 per cent and 96.7 per cent available to the body, values which compare favorably with the thoroughness of digestion of these constituents usually found in similar tests. It may be reasonably concluded on the basis of these results that cocoanut oil is suited to serve satisfactorily for food purposes.”

It would seem that an article of food, composed solely of ingredients recognized as wholesome by National and State authority and adopted as such by the common experience of mankind, should not be deemed to be barred from sale in Ohio, unless it is perfectly clear that the Legislature of

that State intended to accomplish that result by Section 12725 of the General Code. Such an intent is not to be implied.

If skimmed milk is wholesome and its sale is permitted under proper labeling (as is the fact in Ohio), can it be supposed that the Ohio Legislature intended absolutely to prohibit the sale of skimmed milk, when condensed, as being unwholesome? This is to impute irrationality to the Legislature.

Does Section 12725 prohibit the sale of "Hebe" in Ohio?

"Hebe" is a compound food product. It is not milk. It is not skimmed milk. It is not condensed skimmell milk. It is a compound which is composed of condensed or evaporated skimmed milk and cocoanut oil, and as a compound it stands upon its own footing. It is a compound recognized by the Federal Department of Agriculture. That Department in its ruling, communicated to the Attorney-General of the State of Ohio under date of August 2, 1916, said (Rec. p. 79):

"The Bureau is informed that Hebe is a mixture of evaporated skimmed milk and cocoanut fat. It is considered to be a compound within the meaning of section 8 of the Food and Drugs Act, in the case of food, second subdivision of paragraph fourth, which provides that an article of food which does not contain any added poisonous or deleterious ingredients shall not be deemed to be adulterated or misbranded—

In the case of articles labeled, branded, or tagged so as to plainly indicate that they are compounds, imitations, or blends, and the word 'compound,' 'imitation,' or 'blend,' as the case may be, is plainly stated on the package in which it is offered for sale; * * *

Even admitting, for the sake of argument, that Section 12725 of the Ohio Code makes unlawful

the sale of condensed skimmed milk, though plainly labeled and sold for just what it is, still the sale of "Hebe" is not unlawful unless we go a step further and say that the presence of any quantity of condensed skimmed milk, however slight, in a product makes the sale of such product unlawful, though sold for exactly what it is.

In order to reach this conclusion, it is necessary to hold that "Hebe" is "condensed milk" within the meaning of Section 12725, because that section deals only with condensed milk. But, as we have said, "Hebe" is not condensed milk. It is a distinctive product protected by United States patents, labeled and sold under its own distinctive name "Hebe", and the fact that it is composed in part of condensed skimmed milk does not make it a condensed milk.

Skimmed milk is milk from which the butter fat has been removed. To this skimmed milk a sufficient amount of cocoanut fat is added in the process of manufacturing "Hebe" to supply the place of the butter fat which has been removed. The inclusion in the product "Hebe" of a percentage of vegetable fat under such circumstances cannot be regarded as a subterfuge. It is a *bona fide* creation of a new product. Such inventive and creative activities are not unlawful.

So we have "Hebe", a compound of two admittedly wholesome ingredients, to-wit, condensed skimmed milk and cocoanut oil, scientifically combined so as to remain permanently in solution. The cocoanut oil supplies the place of the butter fat, making a very pleasant and healthful product, plainly labeled to show its exact nature and composition. The nutritious quality of "Hebe" as a compound is abundantly established (Rec. pp. 68, 69).

Aside from constitutional questions, such a product should not be barred from the market un-

less the true intent of the statute makes such a step inevitable.

The statute in question is a penal statute and it is elementary that while it should receive a fair construction, it should not be extended beyond its explicit terms. (*Bolles v. Outing Company*, 175 U. S. 262, 265; *Commonwealth v. Boston, etc., Milk Co.*, 209 Mass., 30, 37.) The offense must be brought within the terms of the statute, and ambiguities, if there be such, must be resolved in favor of the accused. In the present instance there is no ambiguity. The statute refers to "condensed milk" and it has no application to a compound of the sort here in question, which is sold under its distinctive name and properly labeled with a description of its constituents.

That the statute, according to its proper construction, does not apply to a product like "Hebe" is conclusively shown by numerous authorities and by the decisions of this Court. We have here no construction by the highest court of the State of its own statute which must be accepted by this Court. The construction is solely that of a Federal tribunal, and in that construction we submit there is serious error.

In the case of *State v. Crescent Creamery Company*, 83 Minn. 284, the act involved was:

"No person shall sell or offer for sale any *cream* taken from impure or diseased milk, or cream that contains less than twenty per centum of fat. Whoever violates the provisions of this section shall be deemed guilty of a misdemeanor, and shall be punished by a fine of not less than ten dollars nor more than one hundred dollars."

The Supreme Court of Minnesota in construing this act said:

"Its obvious purpose is to fix a standard for *cream* and prohibit the sale of any cream,

as such, which is below the prescribed standard * * *. We accordingly hold that the statute in question forbids, and only forbids, the sale of cream, *as such*, which is below the prescribed standard. * * * And the Legislature, by this statute, having, in the exercise of the police power, fixed a standard for all cream to be sold *as such*, the act is valid." (Italics ours.)

In the case of *Genesee Valley Milk Products Company v. J. H. Jones Corporation*, 143 App. Div. (N. Y.) 624, 626, 627, the question before the Appellate Division of New York was the construction of Section 37 of the Agricultural Law of that State, which was substantially the same as Section 12725 of the Ohio law. The section of the New York Act was as follows:

"No condensed milk shall be made or offered or exposed for sale or exchange unless manufactured from pure, clean, healthy, fresh, unadulterated and wholesome milk from which the cream has not been removed either wholly or in part, or unless the proportion of milk solids shall be in quantity the equivalent of twelve per centum of milk solids in crude milk, and of which solids twenty-five per centum shall be fats."

The plaintiff sought to recover the price of certain milk sold to a purchaser as "half and half", which was a condensed milk composed of skimmed milk and whole milk, in equal proportions. The defense of the purchaser was that the milk sold was in violation of the pure food law of the State. But the court held that the sale did not violate any law. McLennan, P. J., said:

"But in this case we think the Legislature was entirely without power to declare that skimmed milk should not be a part of condensed milk with certain proportions of whole

milk. There is no suggestion that there is anything unwholesome about skimmed milk, and if it is sold as such, it seems to me that no one ought to complain."

And in his concurring opinion, Kruse, J., said:

"Condensed milk is a well-known milk product. The statute prescribes that this product, 'condensed milk,' shall not be made, offered or exposed for sale or exchange unless manufactured from milk of a prescribed quality and condition. But, as it seems to me, the making and selling of a condensed mixture of whole and skimmed milk are not prohibited, if made and exposed for sale not as 'condensed milk' but for what it is, as was done in this case.

"This statute should receive a reasonable and not a strict interpretation. It certainly cannot be that the Legislature intended to prohibit absolutely the making of a condensed mixture of whole and skimmed milk. Nor do I think the manufacture or sale of such an article as food is forbidden, if put on the market for what it actually is, and not as condensed milk. Pure skimmed milk, either alone or mixed with whole milk, is not unwholesome, nor is it claimed to be. * * * I think there was not a making or offering or exposing for sale of condensed milk within the meaning of the Agricultural Law."

In *Commonwealth v. Boston White Cross Milk Co.*, 209 Mass. 30, the defendant was convicted of adding water to a product which was denominated "concentrated milk," in violation of a statute which prohibited the addition of water to "milk."

The Court, in holding that the "concentrated milk" was not included within the term "milk" as used in the statute, said (p. 36):

"It is not contended that the manufactured product of the defendant, to which it added water for reduction and sale, was natural

milk as it comes from the cow. And we have searched the evidence in vain for anything upon which it could be found that this manufactured product had come to be known in the trade as milk. Certainly there is no such intimation in the testimony of the government, and that put in by the defendant is wholly to the effect that the defendant's 'concentrated milk' was a new and unique product, manufactured only since 1908, under letters patent, at a factory equipped for that purpose, shipped to the defendant's place of business in Boston, and there extended by the defendant and put upon the market only in its diluted form. There is nothing in the evidence tending to show that the concentrated product had been dealt with in the market, or had been a subject of trade, or even had been in the hands of any dealers other than the defendant itself. A contract for the delivery of milk would not be satisfied by the delivery of this concentrated product, which must be diluted by the addition of water before it could be drunk like milk or made available for use as milk in the ordinary manner. It is no more milk within the meaning of such a contract than natural milk which does not come up to the prescribed standard. *Copeland v. Boston Dairy Co.*, 184 Mass. 207, and 189 Mass. 342. The fact that the word 'milk' in this statute has been construed to include cream as one of its natural components (*Commonwealth v. Gordon*, 159 Mass. 8) does not indicate that it should include also a substance produced from it by a process of manufacture with artificial appliances involving some chemical changes. The substance itself is not milk, just as butter and cheese and condensed milk are not themselves milk. * * * * * But we are dealing with a penal statute, and its scope is not to be extended beyond the natural meaning of its words."

In *Hutchinson Ice Cream Co. v. Iowa and Crowl v. Pennsylvania*, 242 U. S. 153, the statutes before

the Court, which prohibited the sale of ice cream containing less than a fixed percentage of butter fat, were assailed as invalid under the Fourteenth Amendment, the Supreme Court of each state having held its statute constitutional. The state statutes involved were those of Iowa and Pennsylvania. This Court, in meeting the objection that the statutes arbitrarily prohibited the sale of a large variety of compounds theretofore included under the name 'ice cream,' held that the acts merely prohibited the sale of such compounds *as* 'ice cream.' The court said:

"It is specially urged that the statutes are unconstitutional because they do not merely define the term 'ice cream'; but arbitrarily prohibit the sale of a large variety of wholesome compounds theretofore included under the name 'ice cream.' The acts appear to us merely to prohibit the sale of such compounds *as ice cream*. Such is the construction given to the act by the Supreme Court of Iowa, *State v. Hutchinson Ice Cream Co.*, 168 Iowa, 1-15, which is, of course, binding on us. We cannot assume, in the absence of a definite and authoritative ruling, that the Supreme Court of Pennsylvania would construe the law of that state otherwise." (Italics ours.)

The material part of the Pennsylvania statute, there in question, reads as follows:

"Section 4. No ice cream shall be sold within the state containing less than eight (8) per centum butter fat, except where fruit or nuts are used for the purpose of flavoring, when it shall not contain less than six (6) per centum butter fat."

The Pennsylvania statute above quoted does not differ materially from Section 12725 of the Ohio Code, except that the former deals with 'ice cream' and the latter with 'condensed milk.'

We think that the intent and meaning of the Ohio statute is to define a standard for condensed milk, that is, for what is sold as 'condensed milk,' just as the intent and meaning of the Pennsylvania statute, as it appeared to this Court, is to define a standard for ice cream that is, for what is sold as 'ice cream.'

The Pennsylvania statute was not deemed to prohibit the sale of wholesome compounds, even though they had theretofore been included under the name "ice cream", unless it appeared that they were sold as ice cream. It was the sale as ice cream that the statute interdicted. And even more clearly in this case does it appear that the statute has no application whatever to the sale of such a distinctive compound as "Hebe" under its proper label.

An attempt was made in the present case to show that there had been sales, or offers, of "Hebe" as evaporated or condensed milk. But the evidence was slight and inconsequential (Rec. pp. 80, 81). In one instance it appeared that under specifications calling for evaporated milk a certain jobber had sent in some "Hebe",—how much does not appear. In another instance a representative of the Ohio State Board of Agriculture went into a grocery store and asked the clerk if they had any condensed milk. The clerk stated that they had the "Hebe" brand, and the witness said, "That will do." In the case of another grocery store the representative of the Department asked if they had any condensed milk, and when the answer was in the affirmative said, "What brands have you?" The storekeeper, after naming two or three different brands, said, "I have 'Hebe' also, no use of my denying the fact for you see it." Of course this is a most slender basis for the conclusion that "Hebe" was being sold as condensed milk. There is no claim that

"Hebe" was not offered in the cans bearing its distinctive label which described it as it actually was. On the contrary, the evidence is that it was offered in these cans, and it is stipulated that each can bears the label as shown in the bill of complaint (Rec. p. 66). The paucity of the evidence adduced on this point by the defendants clearly shows the inability of the defendants to make a case that "Hebe" was sold or offered for sale except as a distinctive compound under its own label. Had there been any other practice the defendants, with the abundant means at their command, would certainly have established it.

Further, neither in the case of the two grocery-men nor in the case of the jobber was the matter brought home in any way to the appellants.

Not only is the product put up in a distinctive manner, conspicuously labeled as a compound, with a truthful description of its constituents, but the appellants have given the most careful instructions to avoid any possible misrepresentation (Rec. p. 77).

It will be time enough to deal with any question of this character when anyone—a jobber or groceryman—is prosecuted for selling "Hebe" as condensed milk. *The appellants are not seeking to restrain that application of the statute.* The appellants are not seeking in any manner to prevent the State of Ohio from enforcing any provision which is of the slightest value in preventing any sort of imposition.

In the case of the Pennsylvania statute, which was before the Court in the *Hutchinson* case (*supra*), the fact that the statute reached compounds which were sold as 'ice cream' did not lead to the conclusion that it amounted to a prohibition of the sale of the compounds under their appropriate designations.

In the present case the appellants seek to prevent the defendants from interfering with the legitimate trade in this product, *as a distinctive product, pure and wholesome, sold under its own name and in accordance with the description conspicuously set forth upon its labels.* In the case of every can, the purchaser of "Hebe" is definitely informed just what he is buying by the label upon the can itself, and the appellants are most careful that their product shall not be described in any other manner.

The present point is that Section 12725 of the Ohio General Code does not prohibit the sale of products such as "Hebe" under their appropriate characterizations with distinctive labels.

OTHER SECTIONS OF THE OHIO CODE.

In the opinion of the District Court (Rec. pp. 39-41) reference is made to certain Sections of the Ohio Code, other than Section 12725, dealing with the subject of adulteration and misbranding of food. The references are to Sections 5774, 5775, 5778, 5785, 12716, 12717 and 12718.

We believe that a careful reading of the opinion (see Rec. p. 40, last paragraph) will show conclusively that the decision is based solely on Section 12725.

However, since the other sections above named have been referred to in the opinion, we comment on them as follows:

Section 5774 simply makes it unlawful to manufacture for sale, offer for sale, sell or deliver, or have in possession with intent to sell or deliver, a drug or article of food which is adulterated or misbranded within the meaning of the chapter.

This section would not affect "Hebe," because it is neither adulterated nor misbranded within

the meaning of this chapter, and the Court did not hold that it is.

Section 5775 defines what shall be deemed to be included within the terms "drug" and "food" as used in the chapter, and provides that the term "food" shall include compound articles used by man for food.

"Hebe" would be deemed to be a food within the meaning of the definition.

Section 5778 contains eleven definitions of what shall be deemed to be adulteration within the meaning of the chapter (Chapter 1).

"Hebe," when labeled in the manner described in the bill of complaint (Rec. pp. 3, 65) and sold under that label and as and for the product described by that label, would not be adulterated under any of the definitions of adulteration contained in the section.

It does not follow that because "Hebe" consists in part of evaporated skimmed milk—skimmed milk being a product from which butter fat has been removed—that "Hebe" is adulterated under the third definition of adulteration in this section. Nor does it follow that skimmed milk or evaporated skimmed milk is adulterated under that definition and we submit that the court below was in error in so holding (Rec. p. 40). This is apparent from the following rulings:

For example, *chocolate* "is the solid or plastic mass obtained by grinding cocoa nibs without the removal of fat or other constituents except the germ, and contains not more than three (3) per cent. of ash insoluble in water, three and fifty hundredths (3.50) per cent. of crude fiber, and nine (9) per cent. of starch, and not less than forty-five (45) per cent. of *cocoa fat*", and *cocoa* is "*cocoa nibs, with or without the germs, deprived of a portion of its fat and finely pulverized, and contains percentages of ash, crude fiber, and starch corre-*

sponding to those in chocolate after correction for fat removed" (Circular No. 19, June 26, 1906, U. S. Dept. of Agriculture, *supra*, page 17). (Italics ours.)

'Cocoa fat' is a valuable ingredient of chocolate and it is removed in the manufacture of cocoa, but cocoa is not adulterated within the meaning of the definition referred to.

Rose vs. State, 11 Ohio Cir. Ct. Rep. 87,
1 Ohio C. D. 72.

In the above case the identical definition involved here was construed by the courts directly contrary to the construction placed upon it by the District Court in the case at bar.

Again, *molasses* is a common article of food, but a valuable or necessary ingredient, to-wit, sugar has been removed from it. (Circular No. 19, June 26, 1906, U. S. Dept. of Agriculture.)

Is the sale of molasses prohibited by Chapter 1 of the food law of Ohio? We think not.

If the construction placed upon Section 5778 by the District Court were the correct one the sale of both cocoa and molasses would be prohibited, as they would both be adulterated food and as such their sale would be prohibited by the terms of section 5774 *supra*. We have searched the laws of Ohio in vain for any standard for these products, or for anything which would indicate that the legislature intended to take them out from under the alleged prohibition of the section, as the Court reasoned with respect of skimmed milk, the labeling of which is provided for by a special section (Rec. p. 40).

There are many other common articles of food whose sale would be prohibited under such a construction, such as buttermilk and others for which no "exempting clause" (Rec. p. 40) can be found in any of the laws of Ohio.

In order to determine whether any valuable or necessary constituent has been abstracted from an article, it is necessary to determine what the article is, or is represented to be. If, for illustration, an article is represented to be condensed whole milk and upon analysis it is found that the butter fat has been removed from it, then, of course, a valuable or necessary constituent or ingredient has been removed from it. But if the article is represented to be condensed skimmed milk, and upon analysis it is found that it contains no butter fat, the article will not be deemed to be adulterated, because the standard for condensed skimmed milk does not provide that it shall contain butter fat, but on the contrary, as we have seen from the standard and definitions for condensed skimmed milk, *supra*, the product is milk that has been skimmed, which means, of course, that the butter fat has been removed. And, of course, in the case of a food product, the fact that one of the ingredients is condensed skimmed milk does not make it adulterated. In dealing with this precise point, Thornton on Pure Food and Drugs, paragraph 120, pages 202-203, in referring to the Federal Food and Drugs Act, states:

"The statute provides that an article of food shall be deemed adulterated 'if any valuable constituent of the article has been wholly or in part abstracted from it'. But an article from which a valuable part of it has been abstracted may be sold if the package is so labeled or accompanied by a statement to show that fact, if it be wholesome. Thus regulation 26 provides that, 'When an article is made up of refuse materials, fragments or trimmings, the use of the name of the substance from which they are derived, unless accompanied by a statement to that effect, shall be deemed a misbranding. Packages of such materials may be labeled "pieces,"

“stems,” “trimmings,” or with some similar appellation.’ *This does not prevent the sale of skimmed milk if it be sold as skimmed milk and not as a whole milk.*” (Italics ours.)

And again, on page 204, Thornton states :

“If the label truly states the several substances entering into the food, then such food may be sold and no offense committed. It is mixed or blended or compound food. * * *”

“Hebe” is sold as a compound of condensed skimmed milk and vegetable fat and the composition of the product is plainly indicated on the label and no valuable or necessary constituent or ingredient has been wholly or in part abstracted from it. It conforms in all respects to what the label represents it to be. It is not adulterated or misbranded under any definition of adulteration or misbranding in the Ohio law.

Section 5785—relates entirely to misbranding. It has nothing whatever to do with adulteration. It contains the proviso referred to in the opinion of the District Court (Rec. p. 39). The effect of that proviso is that if an article of food is appropriately labeled as a compound or mixture, according to the terms of the proviso, the definitions of misbranding contained in that particular section shall not apply to the article. It means that whereas an article might otherwise be misbranded within the meaning of that section, it shall not be deemed to be misbranded if labeled correctly under the proviso. “Hebe” is not misbranded in any sense under the definitions of misbranding in that section. The courts of Ohio have held that the proviso is not a mandatory labeling requirement and consequently it is not necessary in any event for “Hebe” to be labeled to comply with the letter of the proviso.

In the case of *The J. M. Sealtz Company vs. The State of Ohio*, decided by the Court of Appeals for Allen County, Ohio, on December 28th, 1917, the court said:

"The proviso contained in Section 5785, General Code, is *not* a requirement that packages containing mixtures or compounds shall be labeled, with the name and percentage in terms of one hundred per cent of each ingredient, as therein specified, but it is an exclusion of such packages from the defined offense of misbranding."

This case is unreported, but we have procured a certified copy of the memorandum opinion of the Court and filed the same with the Clerk of this Court. An application was made for review by the Supreme Court of Ohio, but that Court declined to grant a *certiorari*. We have also filed with the Clerk of this Court a certified copy of the memorandum of the Supreme Court of Ohio.

Section 12716—simply fixes the standard for whole milk and is not involved here.

Section 12717—simply prohibits the adding of water to milk, or the sale of adulterated or unclean whole milk and is not involved here.

Section 12718—simply provides a penalty and is not involved here.

None of the sections mentioned by the court apply to "Hebe".

By the passage of Section 12720 the Legislature of Ohio recognized that the people can be protected in their purchases of skimmed milk by proper labeling of the product in the manner prescribed by the statute. How can it be said that the people are not protected in their purchases of "Hebe" by the clearly appropriate label that is on it? That labeling, considered in connection with the ample provisions made by the food laws of Ohio for punishing any person who practices

fraud or deceit in the sale of a food product, is all the reasonable protection necessary. It would be unreasonable and unnecessary to go further and absolutely prohibit the sale of the product, and that, we submit, the Legislature of Ohio did not do.

II.

IF THE LEGISLATION IN QUESTION CAN BE DEEMED TO BE APPLICABLE, THE PROHIBITION OF THE SALE OF THIS PRODUCT IN OHIO IS AN UNCONSTITUTIONAL INTERFERENCE WITH INTERSTATE COMMERCE. THE APPELLANTS ARE ENTITLED TO BE PROTECTED AGAINST INTERFERENCE WITH SALES IN THE ORIGINAL PACKAGES. THE PROHIBITION OF THE STATUTE IS REPUGNANT TO THE FEDERAL FOOD AND DRUGS ACT.

(1) There can be no question that if the legislation, as construed, constitutes an interference with interstate commerce, the appellants are entitled to complain. This question was raised and decided in *Savage v. Jones*, 225 U. S., 501, 519, 520, where the Court said:

“It is said that the complainant is not entitled to invoke the constitutional protection, in that he fails to show injury. * * * It clearly appears from the bill that the complainant was engaged in dealing with purchasers in another State. His product manufactured in Minnesota was, in pursuance of his contracts of sale, to be delivered to carriers for transportation to the purchasers in Indiana. This was interstate commerce, in the freedom of which from any unconstitutional burden the complainant had a direct interest. The protection accorded to this commerce by the Federal Constitution extended to the sale by the receiver of the goods in the

original packages. *Leisy v. Hardin*, 135 U. S. 100; *In re Rahrer*, 140 U. S. 545, 559, 560; *Plumley v. Massachusetts*, 155 U. S. 461, 473; *Vance v. Vandercook Co.* (No. 1), 170 U. S. 438, 444, 445; *Schollenberger v. Pennsylvania*, 171 U. S. 1, 22-25; *Heyman v. Southern Railway Co.*, 203 U. S. 270, 276. An attack upon this right of the importing purchasers to sell in the original packages bought from the complainant, not only would be to their prejudice, but inevitably would inflict injury upon the complainant by reducing his interstate sales, a result to be avoided only through his compliance with the act by filing the statement and affixing to his goods the labels it required. According to the bill, the State Chemist had threatened the complainant that in default of such compliance he would cause the arrest and prosecution of every person dealing in the article within the State and had distributed broadcast throughout the State warning circulars. If the statute of Indiana, as applied to sales by importing purchasers in the original packages, constitutes an unwarrantable interference with interstate commerce in the complainant's product, he had standing to complain, and was entitled to relief against enforcement by the defendant of the illegal demands. *Scott v. Donald*, 165 U. S. 107, 112; *Ex Parte Young*, 209 U. S. 123, 159, 160; *Ludwig v. Western Union Telegraph Co.*, 216 U. S. 146; *Hopkins v. Cleuson College*, 221 U. S. 636, 643-645; *Philadelphia Co. v. Stimson*, 223 U. S. 605, 620, 621".

From the stipulation of facts (Rec. pp. 49, 50) it appears that the appellants "are engaged in manufacturing and selling outside the State of Ohio, and shipping to the State of Ohio, the food product" in question; that they deal "with wholesale dealers, jobbers and distributors, residing and doing business in the State of Ohio"; that the appellants "receive orders for said food product from said wholesale dealers, jobbers and distribu-

tors in the State of Ohio and then fill said orders by shipping said product from plaintiffs' places of business outside of the State of Ohio to said wholesale dealers, jobbers and distributors in the State of Ohio"; that "said wholesale dealers, jobbers and distributors then sell said product to retail dealers (and in some instances directly to large consumers such as restaurants and hotels) in the State of Ohio"; and that "said retail dealers sell the said food product direct to consumers in the State of Ohio".

(2) The defendants expressly admit, by their stipulation, that it is their intention to prevent all sales of the product within the State, including those by wholesalers, jobbers, distributors as well as retailers. They say in their stipulation (Rec. p. 52):

"10. The defendants, Norman E. Shaw, as Secretary of Agriculture of Ohio, and Thomas C. Gault, as Chief of Bureau of Dairy and Foods of the Board of Agriculture of Ohio, have served notice upon plaintiffs and their customers in the state of Ohio that said product 'Hebe' cannot be sold or distributed in the state of Ohio from and after the ninth day of July, 1918, and if after that date said product be found upon the market, said defendants will cause prosecutions to be brought against all wholesalers, jobbers, distributors and retailers selling, offering or exposing for sale the said product known as "Hebe" in the state of Ohio."

It is manifest that the Act is construed by these officials to be applicable, and that they threaten to apply it, to all sales which are made within the State whether by the wholesalers, jobbers, distributors or retailers, these sales being made in the original packages.

The appellants complain in their bill of complaint of this interference with their constitutional right to engage in interstate commerce, and the question thus raised was properly presented to the District Court. But the District Court overruled their contention and dismissed the bill, denying the appellants all relief. It is submitted that this was clear error.

(3) Even if it were assumed, for the sake of argument, that the State of Ohio could prohibit the sale of a wholesome product of this sort when manufactured and sold within the State, the State had no power to prevent a sale of this product when manufactured outside the State and sold within the State in the original packages in which it had been imported.

Schollenberger vs. Pennsylvania, 171 U. S. 1;

Collins vs. New Hampshire, 171 U. S. 30.

In *Schollenberger vs. Pennsylvania*, *supra*, the Court *held*, with respect to oleomargarine, despite the decision in *Powell vs. Pennsylvania* (127 U. S. 678), that whatever power the State might have with respect to oleomargarine manufactured and sold within the State, its power did not extend to the interdiction of, or interference with, interstate commerce in that article. The Court said (pp. 13-16):

“The Court said” (referring to cited cases) “that a State could not, under the cover of exerting its police powers, substantially prohibit or burden either foreign or interstate commerce. Reasonable and appropriate laws for the inspection of articles, including food products, were admitted to be valid, but absolute prohibition of an unadulterated, healthy and pure article has

never been permitted as a remedy against the importation of that which was adulterated and therefore unhealthy or impure.

"We do not think the fact that the article is subject to be adulterated by dishonest persons, in the course of its manufacture, with other substances, which it is claimed may in some instances become deleterious to health, creates the right in any State through its legislature to forbid the introduction of the unadulterated article into the State. * * *

"It is claimed, however, that the very statute under consideration has heretofore been held valid by this court in the case of *Powell v. Pennsylvania*, 127 U. S. 678. That case did not involve rights arising under the commerce clause of the Federal Constitution. The article was manufactured and sold within the State, and the question was one as to the police power of the State acting upon a subject always within its jurisdiction * * *

"The *Powell case* did not and could not involve the rights of an importer under the commerce clause. The right of a State to enact laws in relation to the administration of its internal affairs is one thing, and the right of a state to prevent the introduction within its limits of an article of commerce is another and a totally different thing. Legislation which has its effect wholly within the State and upon products manufactured and sold therein might be held valid as not in violation of any provision of the Federal Constitution, when at the same time legislation directed towards prohibiting the importation within the State of the same article manufactured outside of its limits might be regarded as illegal because in violation of the rights of citizens of other States arising under the commerce clause of that instrument.

"Referring what is said in the opinion in *Powell's case* to the facts upon which the case arose, and in regard to which the opinion was based and the case decided, there is nothing whatever inconsistent with that opinion in

holding, as we do here, that oleomargarine is a legitimate subject of commerce among the States, and that no State has a right to totally prohibit its introduction in its pure condition from without the State under any exercise of its police power."

The same ruling was made in the case of *Collins vs. New Hampshire, supra*, where it was held that the State of New Hampshire, prohibiting the sale of oleomargarine as a substitute for butter, unless it is of a pink color, was invalid under the commerce clause, because it was in its necessary effect prohibitory. The Court said (pp. 33-34):

"In a case like this it is entirely plain that if the State has not the power to absolutely prohibit the sale of an article of commerce like oleomargarine in its pure state, it has no power to provide that such article shall be colored, or rather discolored, by adding a foreign substance to it, in the manner described in its statute. Pink is not the color of oleomargarine in its natural state. The act necessitates and provides for adulteration. It enforces upon the importer the necessity of adding a foreign substance to his article, which is thereby rendered unsalable, in order that he may be permitted lawfully to sell it. If enforced, the result could be foretold. To color the substance as provided for in the statute naturally excites a prejudice and strengthens a repugnance up to the point of a positive and absolute refusal to purchase the article at any price. The direct and necessary result of a statute must be taken into consideration when deciding as to its validity, even if that result is not in so many words either enacted or distinctly provided for * * *"

* * * * *
 "The truth is, however, as we have above stated, the statute in its necessary effect is prohibitory, and therefore upon

the principle recognized in the Pennsylvania cases it is invalid."

So also, upon the grounds explicitly stated in *Schollenberger v. Pennsylvania*, the case is not within the rule of *Plumley v. Massachusetts*, 155 U. S. 462. There the statute prevented the sale of oleomargarine in imitation of yellow butter. Attention was called, as the Court stated in the *Schollenberger* case "to the fact that the statute did not prohibit the manufacture or sale of all oleomargarine, but only such as was colored in imitation of yellow butter produced from unadulterated milk or cream of such milk." In other words, the statute there under consideration was not a prohibition of the sale of a pure or wholesome article of food, but a mere regulatory statute to suppress false pretences and to promote fair dealing.

In the case at bar the statute is not regulatory, but prohibitory. If the construction placed upon it by the Court below could be deemed to be correct and the statute could thus be held applicable to this product, it prevents absolutely all sales within the State, including those by the wholesalers, jobbers and distributors as well as retailers, thus operating as a manifest interference with interstate commerce in a wholesome article of food.

What has already been said with respect to the character of the product need not be repeated here. Its purity and wholesomeness are not in question and it is sold under a plain and honest label. The whole object of the Ohio statute, if deemed to be applicable, is absolutely to prohibit its sale.

(4) There can be no question but that the fibre shipping cases, containing 48 one-pound cans or

96 six-ounce cans respectively, in which "Hebe" is brought into the State, are within the protection of the constitution, and that under the commerce clause the product may be sold in these packages after they have been brought within the State. In short, under any possible view of original packages, these cases come within the rule:

Brown v. Maryland, 12 Wheaton, 419;
Leisy v. Hardin, 135 U. S. 100;
Rhodes v. Iowa, 170 U. S. 412, 424;
Schollenberger v. Pennsylvania, 171 U. S. 1, 19;
May v. New Orleans, 178 U. S. 496;
Austin v. Tennessee, 179 U. S. 343;
Savage v. Jones, 225 U. S. 501, 520.

The defendants made an explicit admission in the District Court, as follows (Rec. pp. 65-66):

"It was thereupon admitted by defendants through their counsel in open court that when the said food product (Hebe) is shipped into the State of Ohio it is contained in tin cans of two sizes, one holding one pound of said product, and the other holding six ounces; and each can bears the label as shown by the bill of complaint; that said cans labeled as aforesaid when shipped into the State of Ohio are packed in fibre shipping cases completely sealed and completely concealing said cans and the label thereon, each case of one pound cans containing forty-eight cans, and each case of six ounce cans containing ninety-six cans; that the shipping case exhibited in court (plaintiffs' exhibit No. 12) is used for the transportation of Hebe into the State of Ohio. * * *"

* * * * *

"Thereupon, it was further admitted by defendants, through their counsel in open court that when Hebe is shipped into Ohio in less than carload lots, said fibre shipping cases

are marked only with the name of the consignee and such other data as is necessary to insure proper identification of the product and delivery of the shipment; but that when shipped in carload lots such cases are not marked with the name of the consignee; that when said shipping cases are received by a retail dealer in the State of Ohio, the individual cans, labeled with the label shown by the bill of complaint, are removed from said shipping cases by such retail dealer and exposed for sale on the shelves of said retail dealer as individual units, and in the great majority of instances are purchased by consumers one can at a time."

According to the course of trade in the present case (Rec. p. 49) the wholesale dealers, jobbers and distributors sell this product to retail dealers in the original shipping cases. In other words, wholesalers, jobbers and distributors normally sell by the case and not by the individual can. This right of the appellants to have their interstate trade preserved and not to have sales by wholesalers, jobbers and distributors interfered with under this prohibitory legislation of Ohio is clearly presented by the bill and was erroneously denied by the decree of the Court below, which dismissed the bill.

(5) Under the Federal Food and Drugs Act of June 30, 1906 (34 Stat. 768), the "original package" is the immediate container of the product which is intended for the consumer.

"Hebe" is a food compound within the meaning of the Federal Act and to the extent that any Ohio statute interferes with or frustrates the operation of the Act of Congress in relation to this product the State statute is void.

When a State statute and a Federal statute operate upon the same subject-matter and pre-

scribe different rules concerning it, and the Federal statute is one within the competency of Congress to enact, the State statute must give way.

Gulf, Colorado & Santa Fe R'way v. Hefley,
158 U. S., 98.

Northern Pacific Railway Co. v. Washington, 222 U. S. 370, 378.

Erie R. R. Co. v. New York, 233 N. Y., 671,
683.

The product in question in this case is a compound within the meaning of *Section 8 of the Federal Food and Drugs Act*. It contains no added poisonous or deleterious ingredients. It is labeled as required by the Federal Act. The officials of the Federal Department of Agriculture have held that "Hebe" is a mixture of evaporated skimmed milk and cocoanut fat and is considered to be a compound within the meaning of Section 8 of the Federal Act (Rec. p. 79).

See *United States v. 779 Cases of Molasses*,
174 Fed. 325.

Undoubtedly the State has the authority to make reasonable regulations with respect to food products where these are not in conflict with the Act of Congress (*Savage v. Jones*, 225 U. S., 501), but in this instance the State of Ohio has not attempted to regulate this product, still less has it sought to make any regulation consistent with the Federal Act, but on the contrary it imposes, if the statute can be deemed to be applicable, an absolute prohibition of all sales. It is beyond the power of the State to denounce "Hebe" as misbranded or adulterated or otherwise as not an acceptable article of commerce, for the product is

directly within the protection of the Federal Food and Drugs Act, it being a product manufactured in another State and brought within the State of Ohio in the course of interstate commerce and Congress having taken possession of that field and established the applicable rules.

In the Federal Act, Congress has dealt with the *immediate containers* of food products which are manufactured in one State and introduced into another. Congress aimed at the protection of consumers, and this object could not be accomplished if the labels it required were those only upon shipping cases and not upon the immediate containers intended for the consumers. There would be no adequate opportunity for Government inspection if such food products, and the drugs, within the Act, were no longer within Federal control when they were removed from the shipping cases and placed upon the shelves of dealers for sale. Accordingly, Congress, having full authority over interstate commerce and the power to fix the rules under which the product in question entered the State of Ohio, took the subject-matter under its control, and a prohibitory State statute which interferes with the operation of the Federal Act, or attempts to substitute its rule for that established by Congress, is nugatory.

This question is determined by the decision of this Court in

McDermott v. Wisconsin, 228 U. S. 115.

In that case, this Court construed the provisions of the Federal Food and Drugs Act, and particularly the provisions of Sections 7, 8 and 10 with respect to labeling or branding. It was held that Congress was aiming at the contents of

the package as it shall reach the consumer, for whose protection the Act was primarily passed, and that it is the branding upon the package which contains the article intended for consumption itself which is the subject matter of regulation. In short, the provisions of Sections 7 and 8 of the Federal Food and Drugs Act were held to refer "to the immediate container of the article", and it was decided that the provisions of the statute as thus construed were clearly within the powers of Congress over the facilities of interstate commerce.

The plaintiffs in error in the *McDermott* case had been convicted of violating a statute of Wisconsin, purporting to have been passed for the protection of the public health, which provided (among other things) that no one should sell syrup bearing any designation or brand other than that required by the local statute. The plaintiffs in error had bought "Karo" corn syrup from wholesale grocers in Chicago and had received from that city "twelve half-gallon tin cans or pails of the article designated in the complaints, each shipment being made in wooden boxes containing the cans," and when the goods were received at their stores "the respective plaintiffs in error took the cans from the boxes, placed them on the shelves for sale at retail and destroyed the boxes in which the goods were shipped to them as was customary in such cases". It was the contention of the plaintiffs in error that the cans had been labeled in accordance with the Federal Food and Drugs Act and that the local statute was repugnant to the Act of Congress and was invalid as an unconstitutional deprivation of their right to sell the article which had been brought

into the State duly labeled as the Federal statute required. This contention was sustained by this Court. Congress, it was said, had the right to provide what label the goods should have, and while the State could make reasonable regulations to provide against fraud and imposition (as was held in *Savage v. Jones*, 225 U. S. 501), the State could not act in derogation of the privilege enjoyed in interstate commerce under the Act of Congress. The Court said (pp. 130-131):

“That the word ‘package’ or its equivalent expression, as used by Congress in sections 7 and 8 in defining what shall constitute adulteration and what shall constitute misbranding within the meaning of the act, clearly refers to the *immediate container of the article* which is intended for consumption by the public, there can be no question. And it is sufficient, for the decision of these cases, that we consider the extent of the work package as thus used only, and we therefore have no occasion, and do not attempt, to decide what Congress included in the terms ‘original unbroken package’ as used in the second and tenth sections and ‘unbroken package’ in the third section. Within the limitations of its right to regulate interstate commerce, *Congress manifestly is aiming at the contents of the package as it shall reach the consumer*, for whose protection the act was primarily passed, and it is the branding upon the package which contains the article intended for consumption itself which is the subject-matter of regulation. Limiting the requirements of the act as to adulteration and misbranding simply to the outside wrapping or box containing the packages intended to be purchased by the consumer, so that the importer, by removing and destroying such covering, could prevent the operation of the law

on the imported article yet unsold, would render the act nugatory and its provisions wholly inadequate to accomplish the purposes for which it was passed.

“The object of the statute is to prevent the misuse of the facilities of interstate commerce in conveying to and placing before the consumer misbranded and adulterated articles of medicine or food, and in order that its protection may be afforded to those who are intended to receive its benefits the brands regulated must be upon the packages intended to reach the purchaser. This is the only practical or sensible construction of the act, and, for the reasons we have stated, we think the requirements of the act as so construed clearly within the powers of Congress over the facilities of interstate commerce, and such has been the construction generally placed upon the act by the Federal courts.”

It was insisted, however, that since the cans had been removed from the boxes in which they had been shipped in interstate commerce and were on the shelves of the plaintiffs in error for sale, “they had therefore passed beyond the jurisdiction of Congress and their regulation was exclusively a matter for State legislation.” This Court, reviewing the ‘original package’ cases, overruled this contention and held that the plaintiffs were entitled to sell the cans which they had removed from the coverings in which they were brought into the State, and that their conviction for so doing under the local statute should be reversed, the statute as thus applied being beyond the power of the State. It was said that the ‘original package’ doctrine was not intended to limit the right of Congress to keep the channels of interstate commerce free from the carriage of injurious or fraudulently branded articles and to

choose appropriate means to that end and that it necessarily followed that Congress could provide, as it had provided, for following the adulterated or misbranded article to the shelf of the importer. Section 10 of the Food and Drugs Act provided that the articles might be proceeded against and it was enough by the terms of the Act "if the articles are *unsold*, whether in original packages or not." And the provisions of Section 10 were held to be clearly within the power of Congress under the interstate clause. The Court said (pp. 135-137) :

"In the view, however, which we take of this case it is unnecessary to enter upon any extended consideration of the nature and scope of the principles involved in determining what is an original package. For, as we have said, keeping within its Constitutional limitations of authority, Congress may determine for itself the character of the means necessary to make its purpose effectual in preventing the shipment in interstate commerce of articles of a harmful character, and to this end may provide the means of inspection, examination and seizure necessary to enforce the prohibitions of the act, and when section 2 has been violated the Federal authority, in enforcing either section 2 or section 10, may follow the adulterated or misbranded article at least to the shelf of the importer.

"Congress having made adulterated and misbranded articles contraband of interstate commerce, in the manner we have already pointed out, provides in section 10 of the act that such articles may be proceeded against and seized for confiscation and condemnation while being transported from one State, Territory, district, or insular possession to another for sale, or, having been transported, remaining 'unloaded, unsold, or in original

unbroken packages,' and the subsequent provisions of the section regulate the disposition of the articles seized. To make the provisions of the act effectual, Congress has provided not only for the seizure of the goods while being actually transported in interstate commerce, but has also provided for such seizure after such transportation and while the goods remain 'unloaded, unsold, or in original unbroken packages.' The opportunity for inspection en route may be very inadequate. The real opportunity of Government inspection may only arise when, as in the present case, the goods as packed have been removed from the outside box in which they were shipped and remain, as the act provides, 'unsold.' It is enough, by the terms of the act, if the articles are *unsold*, whether in original packages or not. Bearing in mind the authority of Congress to make effectual regulations to keep impure or misbranded articles out of the channels of interstate commerce, we think the provisions of Section 10 are clearly within its power. Indeed it seems evident that they are measures essential to the accomplishment of the purpose of the act.

"The doctrine of original packages had its origin in the opinion of Chief Justice Marshall in *Brown v. Maryland*, already referred to. It was intended to protect the importer in the right to sell the imported goods which was the real object and purpose of importation. To determine the time when an article passes out of interstate into state jurisdiction for the purpose of taxation is entirely different from deciding when an article which has violated a Federal prohibition becomes immune. The doctrine was not intended to limit the right of Congress, now asserted, to keep the channels of interstate commerce free from the carriage of injurious or fraudulently branded articles and to choose appropriate means to the end. The legislative means pro-

vided in the Federal law for its own enforcement may not be thwarted by state legislation having a direct effect to impair the effectual exercise of such means."

In the *McDermott* case, the authorities of the State of Wisconsin sought to interdict the sale of the article unless the Federal label were removed and the State label put in its place. In the present case, the authorities of Ohio seek, under the statute as construed, to interdict the sale of the article in the immediate container, which has been introduced into the State in interstate commerce and bears the label satisfying the Federal Food and Drugs Act. It is manifest that if the State cannot prohibit the sale unless there is a substitution of labels, it certainly cannot prohibit the sale altogether. The point is whether the State can exercise its authority over the article brought within the State in the course of interstate commerce over which Congress, by appropriate legislation, has assumed control. The decision in the *McDermott* case is to the effect that nothing can be done by the State which is in derogation of the exercise of the authority of Congress in the Federal Food and Drugs Act, and that this authority extends to the labeling of the article in the immediate container as it reaches the consumer and that the importer of the article is entitled to sell it in that container bearing the label which accords with the Federal Act.

If the Act of Congress protected "Karo" corn syrup in the can, removed from the larger package within which it had been brought into the State, the same Act protects "Hebe" in the original can removed from the fibre case within which "Hebe" was brought into the State of Ohio. If the State

of Wisconsin could not prevent the plaintiffs in error in the *McDermott* case who had purchased "Karo" from selling "Karo," as duly labeled under the Act of Congress, they cannot prevent the appellants and the Ohio dealers from selling "Hebe" in the can duly labeled under the Act of Congress. If the power of the State of Ohio reaches "Hebe" in the individual can appropriately labeled under the Act of Congress, because it has been removed from the fibre case in which it was brought into the State with other similar cans, the State of Wisconsin had an equal right to prohibit the sale of "Karo" in its individual cans, and having that right could provide as a condition of sale what label "Karo" should bear. The denial by the *McDermott* case of this right on the part of Wisconsin demonstrates the absence of the right now claimed by Ohio.

The case of the *Purity Extract Company v. Lynch*, 226 U. S. 192, is in no way opposed. In that case no question was presented or decided with respect to original packages under the Federal Food and Drugs Act. The contention made in that case was with respect to the application of the *Wilson Act* of August 8, 1890 (26 Stat. 313) and even this contention it was not necessary for the Court to consider in view of the state of the record. So far as original packages were concerned the contention was addressed solely to the question of original packages entirely apart from the provisions of the Federal Food and Drugs Act, and this decision was prior to the ruling in the *McDermott* case.

Nor was the question before the Court in *Price v. Illinois*, 238 U. S., 446. In that case the record was wholly insufficient to raise the question (*id.* pp. 454, 455). The case was one of a *preservative*

containing boric acid. This preservative was covered by a specific provision of the Illinois statute as construed by the Supreme Court of Illinois (*id.* pp. 448, 450). It does not appear that a preservative of this sort, which is not a food product in itself, is within the Federal Food and Drugs Act or that the Federal Act had any application. Nor did it appear that there had been a compliance with that Act, if it applied. On the contrary, the use of boric acid in a food product was condemned by the Federal authorities (*id.* p. 453; *Hipolite Egg Co. v. United States*, 220 U. S., 45), and the preservative in the *Price* case had no standing whatever under the Federal law. If the Federal Act applied to that preservative, it did not protect it, and if it was inapplicable of course no question arose under it. There is nothing in the *Price* case which in any way detracts from the ruling in the *McDermott* case.

The doctrine of the *McDermott* case has been followed in

Corn Products Refining Co. v. Weigle, 221 Fed., 988.

Courtice Brothers Co. v. Weigle (District Court of the United States for the Western District of Wisconsin, decided October 30, 1916, not yet reported).

In the latter case Judge Sanborn said:

"I think Congress, by the Food and Drugs Act, has made the immediate container the package of interstate commerce by providing that such container shall bear the food label, and by authorizing the seizure of such container by the Federal courts, and the destruction of its contents, in case it be decided that it is misbranded. This, I think, is estab-

lished by the *McDermott* case and by the provisions of the statute. This container is the package of interstate commerce as well as the large package in which the interstate shipment is made, and the State has no power to prevent its sale.

"This view is confirmed, I think, by the special legislation authorizing the Secretary of Agriculture to investigate food adulterations and publish results, followed by investigation and such publication and the inspection and decision of the three secretaries".

The decision in *McDermott v. Wisconsin* shows clearly that the appellants were entitled to a decree in this case restraining the defendants from interfering with the sales of the product in question contained in the cans intended for the consumer, whether or not the sales were made of the product in the fibre cases containing one or more cans, or of the individual cans themselves.

III.

THE PROHIBITION BY THE LEGISLATION IN QUESTION, AS CONSTRUED BY THE COURT BELOW, OF THE SALE WITHIN THE STATE OF OHIO OF THIS PRODUCT, CONCEDEDLY PURE, WHOLESOME AND NUTRITIOUS, IS INVALID AS A DEPRIVATION OF LIBERTY AND PROPERTY, AND A DENIAL OF THE EQUAL PROTECTION OF THE LAWS, CONTRARY TO THE FOURTEENTH AMENDMENT.

"The liberty mentioned in that amendment means not only the right of the citizen to be free from the mere physical restraint of his person, as by incarceration, but the term is deemed to embrace the right of the citizen to be free in the enjoyment of all his faculties; to be free to use them in all lawful ways; to

live and work where he will; to earn his livelihood by any lawful calling; to pursue any livelihood or avocation, and for that purpose to enter into all contracts which may be proper, necessary and essential to his carrying out to a successful conclusion the purposes above mentioned."

Allgeyer v. Louisiana, 165 U. S., 578, 589.

See also,

Adams v. Tanner, 244 U. S. 590.

It should not, we submit, be open to question that the liberty thus guaranteed embraces the right to deal in wholesome food products plainly and fairly labeled. Liberty implies freedom from arbitrary restraint. And what is more palpably arbitrary than to refuse permission to deal in a wholesome food characterized by appropriate description so that there is the utter absence of any deception? It would be futile to deny the broad scope of the police power of the State, but it would be equally futile to assert that it is a power wholly unlimited. Under our constitutional system, while there is the amplest authority to afford local protection, it must appear that the legislation sought to be sustained under the police power is not merely capricious but utterly destitute of any reasonable justification. The Court does not usurp the place of the Legislature when it condemns arbitrary legislation interfering with the liberty and property of the citizen; it merely gives effect to the fundamental law as it has been construed since the Fourteenth Amendment was adopted.

The defendants rely upon *Powell v. Pennsylvania* (127 U. S., 678), but the decision in that

case, it is submitted, cannot be deemed controlling. Would it be said that under the *Powell* case the sale of any wholesome food could be prohibited, regardless of any question of fraud or deception? Or can it be maintained that this Court has decided that any food *product*, admittedly wholesome and properly labeled, may be condemned at the whim of the Legislature merely because it is a food product or compound? Suppose a product is composed of wheat and corn, free from impurities, admittedly wholesome and properly labeled; can a State Legislature prevent its sale? It is hardly necessary to say that such a contention, shocking to the common sense, has no support in any decision of this Court. Articles of commerce honestly made and sold are not at the legislative mercy simply because they are products, mixture or compounds, for it is plain that such a classification for the purpose of justifying legislative prohibition would be arbitrary and insensible. But if the sale of food products *per se* is not to be arbitrarily and capriciously prohibited, what is the basis of valid legislative action?

We submit that, under our constitutional system, the test of validity in connection with legislation as to food products is not peculiar or exceptional. The test is still the same. There must be a fair show of reason for the action. Protection of health and against imposition is the ground invoked. But if the product is admittedly wholesome there is no menace to health, and if it is sold under its appropriate label describing its ingredients, which are both pure and wholesome, there is no deception.

This is not the place to discuss public policy, but in pointing out the arbitrary character of the legislation in question, as construed

by the Court below, it is proper to refer to the necessity and importance of food products under modern economic conditions. The remarks of Mr. Justice Field many years ago upon this point are none the less pertinent and sound because they are found in a dissenting opinion (127 U. S., p. 689):

“Upon first impressions one would suppose that it would be a matter for congratulation on the part of the State, that in the progress of science a means had been discovered by which a new article of food could be produced equally healthy and nutritious with and less expensive than one already existing and for which it could be used as a substitute. Thanks and rewards would seem to be the natural return for such a discovery, and the increase of the article by the use of the means thereby encouraged.”

The decision in the *Powell* case must be considered in the light of the history of the article to which it related. It is a decision which rests upon its peculiar facts. The product in that case was oleomargarine; it was sold as “Oleomargarine Butter” (*Id.* p. 681). It was an article designed to take the place of butter. When the *Powell* case was decided this was a new article about which comparatively little was known. In delivering the opinion of the Court Mr. Justice Harlan said that “many, indeed, that most kinds of oleomargarine butter in the market” might contain ingredients “that are or may become injurious to health”. It was pointed out that the Court could not say “from anything of which it might take judicial cognizance” that such was not the fact. “Oleomargarine butter” was made by a process whereby beef fat—a product theretofore

consumed as a food in the form of cooked beef—was made suitable for use in eating and cooking in the same manner as butter. It was purely a manufactured product produced by a process which changed the beef fat from its natural state into a new state. “Oleomargarine butter” could be dealt with in the same manner as butter, sold by the pound over the counter, and in ordinary course of trade it would reach the consumer without distinctive and appropriate label which would guard against deception. It was this well known condition which aroused intense opposition to its introduction. When consumers ordered butter they were not sure but that they would get oleomargarine. The processes by which oleomargarine was manufactured were not well understood and the subject was one which, in the opinion of this Court, could be in such circumstances dealt with by the State legislature for the protection of the citizens of the State. We conceive that it would be a very serious thing to convert this decision, relating to a product of that description, into a general rule applicable to every food product, which, however pure and wholesome and distinctively labeled, would thus be made subject to a legislative ban in the exercise of an uncontrolled legislative will. Large investments in the production of wholesome food products properly labeled would thus be entirely outside the protection of the fundamental law. For if the Legislature has the right to enact such a prohibition, the business to which its legislation applies exists only upon legislative sufferance. When one considers the host of innocuous and wholesome food compounds in which millions of money are invested in this country, the importance of the question whether these investments are wholly outside the protec-

tion of the Fourteenth Amendment is at once perceived. And the question is not one of regulation, not one of assuring knowledge to the purchaser, not one that has any relation to the protection of health; the question is whether in such a case the legislative *fiat* is effective simply because it is a *fiat* and without other justification.

It is the contention of the appellants that the *Powell* case does not go so far and that, if it could be deemed to go so far, it could not be sustained as a sound exposition of constitutional doctrine.

In the present case that which was lacking in the *Powell* case is found to be present. The Court has a basis for the judicial knowledge which Mr. Justice Harlan in delivering the opinion in the *Powell* case found there to be non-existent. There is no question with respect to skimmed milk. That is standardized by the Federal Department. It is a well known and wholesome article, of important food value. There is no occult process involved in its production; there is nothing to create the fear of some secret mischief that may be wrought by its introduction into the human system. Skimmed milk should of course be sold as skimmed milk, and of this provision of the Ohio statute the appellants make no complaint. But it is insisted that skimmed milk may be sold and that it is the duty of this Court to take judicial notice that skimmed milk standardized by the appropriate Department as an article of commerce, is wholesome.

The cocoanut is also familiar to the Court, and cocoanut oil is a standardized product which has a definite and assured place in the Federal list of wholesome food products. With respect to

cocoanut oil, the Court is not lacking in information for it need only have recourse to the accredited reports of the Government of the United States.

"Hebe" is the compound or mixture of these two wholesome ingredients. It is a distinctive product, not to be confused with anything else. It stands, and it is entitled to stand, upon its own footing. Its wholesomeness is beyond dispute and, as the Court below said in its opinion, has been undisputed in this case. It is sold in small cans, which go directly to the consumer, with its appropriate label describing it fairly and exactly. The conditions are not at all analogous to those under which oleomargarine was sold, where, as was well known, the grocer sold from the tub to the consumer, who got that which passed for butter without anything to warn him to the contrary.

It is enough to say that, as we view it, the Court in order to sustain the Ohio statute as it has been construed must go far beyond the decision in the *Powell* case and establish a new proposition of the most serious import to vast commercial interests.

We make no question whatever of the rule, applied in *Price v. Illinois*, 238 U. S. 446, that where the wholesomeness of an article is debatable, the Legislature is entitled to its own view of the subject and that courts are not to take to themselves its province. That was a case with respect to the use of boric acid in a preservative, and the wholesomeness of the preservative with this content was, to say the least a matter of most serious controversy. But that rule, as the statement of it shows, only applies where there is fair ground

for debate. The Legislature cannot create a field for debate by the mere passage of a statute. In the present case the wholesomeness of the product, and of the ingredients, is beyond controversy, —so clearly beyond controversy that even in this litigation the claim to the contrary is not made.

The Court below referred to a conflict in the evidence as to whether Hebe was "*as nutritious and as effective as a growth producer, and therefore as a health promoter and maintainer as the legally recognized condensed milk*". And the Court said that as long as *that* question was debatable the Legislature was entitled to its own judgment. But any debate upon that point, as we conceive it, is wholly immaterial. The State has no authority to fix a dietary for its citizens. It would hardly be maintained that the State could prohibit the sale of *pears* because the Legislature might think that they were not as nutritious or "*as effective as a growth producer*" as *apples*. Or, if the analogy is to be limited to food products, would it be said that the Legislature could prohibit the sale of *pies* or *tarts* because it thought the children would be better without them? Or that the Legislature could interdict the sale of "*Postum*", because it thought that it would be better for the people to drink milk?

The importance of the question whether there is a reasonable field of debate, has reference to the *wholesomeness* of the article, not to the degree of its nutritious quality. If the Legislature can enter the latter field and attempt to discriminate between foods, and prohibit the sale of foods, because it thinks one food more nutritious than another, it would be easy for the Legislature, on this alleged pretext, to resort to the most invidious, arbitrary and hurtful discriminations under the

pretence of exercising the police power. We submit that the Legislature has no authority to interdict a wholesome food because it thinks some other food would better promote health.

And again let it be noted that the Ohio Legislature permits the sale of skimmed milk, sold under that name and the suggestion that in this case, the Legislature proceeded upon any supposed degrees of nutritive value, is palpably beside the mark. The Legislative, we submit, was doing nothing of the sort, and its motive, which was quite distinct from this, is not difficult to discern.

What has been said applies to the application of both the 'due process' clause and the 'equal protection' clause of the Fourteenth Amendment. The statutory prohibition as construed below, is a deprivation of property without due process of law. And it also sets up an arbitrary and therefore indefensible classification. For, granting the widest latitude in reasonable classification, there is no ground for excluding this food product from sale in Ohio, it being pure, wholesome, nutritious and properly labeled while allowing other food products, and even skimmed milk itself, to be freely sold. The statute, as we have said, should be construed as merely relating to what is sold *as* and *for* condensed milk, and not as applicable to a distinctive food product sold under its trade name and properly described. But if it be given the broad, and, as we think, the unnatural and forced construction which would make it applicable to such a product as "Hebe", it necessarily follows that the statute is without any reasonable basis of classification whatever and therefore is in conflict with the 'equal protection' clause as well as the 'due process' clause of the Fourteenth Amendment.

Nor have we any quarrel with the exercise of the regulating power of the State, even when carried to such an extremity as was shown by the legislation of North Dakota which was before this Court in *Armour & Co. v. North Dakota*, 240 U. S., 510, with respect to the net weight of pails of lard. In the present case the Legislature of Ohio is not prescribing that "Hebe" shall be sold in pails of a certain weight or that the label shall contain this or that description. The statute is not regulatory in any sense. As construed below, it is an absolute interdiction, and it is in that aspect that constitutionality must be determined.

The views thus advanced have abundant support, we think, in many well considered decisions.

In *People v. Biesecker*, 169 N. Y. 53, it was held that the statute there under consideration was unconstitutional because it absolutely forbade the sale of articles of food when they contained any other preservatives than those specified, even though they were not rendered unwholesome by the use of such ingredients. The Court said (pp. 56-58) :

"It is not possible to define accurately the limits of the police power, the exercise of which is vested in the legislature, nor have the courts, as a rule, essayed that task further than to state in very general terms the nature and object of such power. Still, the power has its limitations, and those limitations have been to a large extent determined by the process of exclusion and inclusion, as the courts have upheld particular cases of legislation as valid exercises of the power, and in other cases have declared the legislation void. In *People v. Marx*, 99 N. Y. 377, a statute absolutely prohibiting the manufacture and sale of oleomargarine or any compound as a substitute for butter and cheese was held void.

The statute having been subsequently amended so as to prohibit the manufacture or sale of any article so compounded as to imitate butter was upheld in *People v. Arensberg*, 105 N. Y. 123, as valid legislation to prevent fraud on purchasers and consumers. In *People v. Kilber*, 106 N. Y. 321, a statute defining what should be deemed unwholesome or adulterated milk and prohibiting its sale was held constitutional. In *People v. Girard*, 145 N. Y. 105, a statute forbidding the manufacture or sale of vinegar containing any artificial coloring matter was also held valid. From these cases the following propositions may be deduced: 1. *That the Legislature Cannot Forbid or Wholly Prevent the sale of a Wholesome Article of Food.* 2. That legislation intended and reasonably adapted to prevent an article being manufactured in imitation or semblance of a well-known article in common use and thus imposing upon consumers or purchasers is valid. 3. That in the interest of public health the legislature may declare articles of food not complying with a specified standard unwholesome and forbid their sale. Though these principles, like most legal principles, are true only within limits, there would not seem much chance of conflict in their practical application except between the first and last. In the first of the milk cases (*People v. Cipperty*, 101 N. Y. 634, decided upon opinion of Learned, P. J., in 37 Hun, 319), it was held that the statutory declaration of what was wholesome milk was conclusive, and the defendant was not allowed to show in defense that the milk sold by him was in fact unadulterated and not unwholesome. The first oleomargarine case can be differentiated from this on the ground that the statute forbade its sale as a substitute to *take the place of* butter and not as an unwholesome article of food. Still, that distinction is narrow and I imagine that the sale

and consumption of a well-known article of food or a product conclusively shown to be wholesome could not be forbidden by the legislature even though it assumed to enact the law in the interest of public health." (Last italics ours.)

In *The Toledo, Wabash and Western Railway Co. v. City of Jacksonville*, 67 Ill. 37-40, the court said:

"It is not within the power of the general assembly, under the pretense of exercising the police power of the state, to enact laws not necessary to the preservation of the health and safety of the community that will be oppressive and burdensome upon the citizen. If it should prohibit that which is harmless in itself, or command that to be done, which does not tend to promote the health, safety or welfare of society, it would be an unauthorized exercise of power, and it would be the duty of the courts to declare such legislation void."

In *State v. Hanson*, 118 Minn. 85, the Court held unconstitutional Chapter 183, Laws of Minnesota of 1911, in so far as it prohibited the manufacture or sale of oleomargarine of a shade or tint of yellow, no artificial color matter being used, such shade or tint being produced by natural and essential ingredients which are not deleterious or injurious to health. The opinion of the Court is in part as follows:

"It is in fact conceded that the legislature had no right to prohibit the manufacture of oleomargarine. It being a wholesome article of food, a statute prohibiting its manufacture or sale cannot be upheld. * * * Considering that the direct and necessary results of the statute is to prohibit at least 90 per cent. of the manufacture and sale of a wholesome article of food, it cannot save the law

that it was enacted under the pretense of regulation. * * * Our conclusion is that, if construed as we think it must be, Section 1 of the law in question is invalid, because it amounts to a prohibition of the manufacture and sale of a wholesome article of food."

In *Ex parte Hayden*, 147 Cal. 649, the validity of a law which required all fruit to be labeled to show the locality where same was grown was under consideration, and the Court in holding the law void said:

"It is a matter of common knowledge that this requirement would work the absolute destruction of certain important branches of industry. Dried fruit, such as prunes, peaches and apricots, are gathered in establishments in enormous quantities from the state over. These fruits when dried are assorted by grade and quality, and thus assorted and packed are shipped to the uppermost parts of the earth. It would absolutely prohibit this industry if these fruit-driers were compelled to label each package with the names of the localities from which the fruit came, and if it did not absolutely prohibit it, it would render their business so onerous, complicated, and expensive as seriously to imperil its existence. It is plain therefore, that the act was not designed to prevent either false labeling or the shipping of diseased fruit, and, if so designed, it is both meaningless for this purpose and burdensome for all others. It seems quite apparent that the true purpose of the act was to obtain for the fruit-raisers of some well-advertised and favored localities an advantage in the disposition of their own fruit. But this, for reasons well and elaborately set forth in *People v. Hawkins*, 157 N. Y. 1, (68 AM. St. Rep. 736, 51 N. E. 257), forms no part of the police power, and is wholly beyond the prerogative of the legislature.

"It follows, therefore, that the act in question works an unconstitutional invasion of the prisoner's liberty and it is ordered that he be discharged."

In *Rigbers v. City of Atlanta*, 7 Ga. App. 411, the Court said:

"It will be noticed that under this ordinance the prohibition is not against selling ice cream of less than the prescribed percentage as ice cream, *but against selling it at all*. Though the seller distinctly informs the purchaser that the ice cream contains less butter fats than 10 per cent., the sale is unlawful according to the ordinance. Even if the city has the power to prescribe that no ice cream of less than a certain percentage of richness in butter fats shall be sold *as standard ice cream*, it still would not have the power to say that ice cream below that standard should not be sold at all. For instance, it might be permissible to say that the term 'ice cream,' 'standard ice cream,' or 'first-class ice cream' should relate only to ice cream of a certain prescribed richness, and that whoever sold ice cream of poorer quality should, either by calling it under some other name, or by indicating on the vessel in which it is delivered or otherwise, disclose the inferiority of its quality. But under the ordinance before us, if a physician desired that a patient should have ice cream, but did not deem it safe for him to take the richer ice cream, it would be illegal for anyone to furnish the grade of ice cream actually suited to the sick man's physical condition.

"The court is willing to give every encouragement within legitimate bounds to the public authorities in their laudable effort to protect the public not only against unsanitary food products, but also against adulteration, frauds, and impositions in the sale of food

products, and where the question is doubtful, the doubt will be solved in favor of the regulation; but to say that in a city the size of Atlanta no one shall under any circumstances, or for any purpose, sell any ice cream containing less than 10 (ten) per cent. butter fats is so unreasonable that the ordinance cannot be upheld, where the city's power to pass it rests solely upon the authority of the general welfare clause of its charter."

In *Dorsey v. Texas*, 38 Tex. Crim. Rep. 527, 40 L. R. A. (Tex. Ct. App.) 201, appellant had been convicted of offering for sale an article of food consisting of a mixture of 90 per cent of flour and 10 per cent of corn meal under a statute providing that food is held adulterated "if any inferior or cheaper substance or substances have been substituted, wholly or in part, for the article." The court said:

"The courts have gone to great length in upholding legislation under the police power. In some decisions it has been so magnified as to be regarded as almost omnipotent. We do not agree to the doctrine that under this power, or any other, the legislature can make criminal the mixture or mingling of articles of food which are wholesome and nutritious, and prohibit the sale thereof. * * * The prosecution is attempted to be maintained under the general act to prohibit the intermixing of all foods. We do not believe that it was competent for the legislature to do this. The judgment is reversed, and the prosecution ordered dismissed."

In *People v. Excelsior Bottling Works, Inc.*, 184 App. Div. (N. Y.) 45, the question related to the use of saccharin in bottled soda and the Court held that since saccharin was not injurious to health its use might be regulated but could not be prohibited. The Court said (pp. 51-52):

“Moreover, since saccharin is not injurious to health, its use may be regulated but cannot be prohibited under the exercise of the police power, and, therefore, I think the resolution was void. *People v. Biesecker*, 169 N. Y. 53; *People v. Arensberg*, 103 *id.* 388; *People v. Marx*, 99 *id.* 377; *People v. Bowen*, 182 *id.* 1, 10; *Curtice Bros. Co. v. Barnard*, 209 *Fed. Rep.* 589; *State v. Hanson*, 118 Minn. 85; 40 L. R. A. (N. S.) 865. See, also, *Waite v. Macy*, 246 U. S. 606. If a *standard* of purity or with respect to the ingredients to be used in making soda water had been prescribed by the Legislature or by legislative authority, then it might well be argued that no other ingredients could lawfully be used in making it. (See dissenting opinion of *Learned, P. J.*, in *People v. Cipperly*, 37 Hun, 324, on which the decision was reversed, 101 N. Y. 634.) It is perfectly obvious that entirely aside from the question of disease or medical advice some people may desire, especially in hot weather, a cooling beverage that contains no food value or that has been sweetened to render it palatable by the use of saccharin instead of by the use of sugar, and there is, therefore, no occasion or authority for prohibiting such use of saccharin.

“It follows that the conviction should be reversed and the information dismissed.”

See also *Waite v. Macy*, 246 U. S. 606.

IV.

THE DECREE SHOULD BE REVERSED AND THE CAUSE
REMANDED WITH DIRECTION TO ENTER A DECREE IN
ACCORDANCE WITH THE PRAYER OF THE BILL OF COM-
PLAINT.

BRODE B. DAVIS,
THOMAS E. LANNON,
AUGUSTUS T. SEYMOUR,
CHARLES E. HUGHES,
Of Counsel for Appellants.

Appendix A.

ALABAMA.

Sub-Section 13 of Section 572 of the Code of Alabama, which Section was enacted August 26, 1909, makes it the duty of the Commissioner of Agriculture and Industries to fix the standards of purity for all food and drug products in accordance with those promulgated by the Secretary of Agriculture, the Secretary of the Treasury, and the Secretary of Commerce and Labor, of the United States, when such standards are not fixed by such Act.

No standards for milk are fixed by such Act.

In a bulletin issued by the Department of Agriculture of Alabama entitled "Food and Drug Laws Regulations Governing Enforcement and Standards," Serial No. 49, January 1, 1912, the following "Standards," are established:

"*Skim milk* is milk from which a part or all of the cream has been removed, and contains not less than nine and one-quarter (9.25) per cent. of milk solids." (P. 40.)

"*Condensed skim milk* is skim milk from which a considerable portion of water has been evaporated." (P. 40.)

"*Cocoanut oil* is the oil obtained from the kernels of the cocoanut (*Cocos nucifera* L.) and subjected to the usual refining processes and free from rancidity." (P. 62.)

ARIZONA.

Section 4431, Chapter 3 of Title 41, Revised Statutes of Arizona for 1913, reads as follows:

"The standard of purity of food and liquor shall be that proclaimed by the Secretary of the United States Department of Agriculture."

CALIFORNIA.

Section 3 of the Pure Foods Act, approved March 11, 1907, as amended 1909, 1911 and 1915, reads as follows:

“Sec. 3. The standard of purity of food and liquor shall be that proclaimed by the Secretary of the United States Department of Agriculture.”

Chapter 93 of the Laws of 1915 provides for a State laboratory for examining foods and to advise the “state board of control” concerning the standard of purity and other matters relating to food. The Act also provides for a guaranty by dealers of food. A guaranty as to compliance with National standards is not sufficient if a higher standard is established under the above Act. In a booklet entitled “Pure Foods and Drugs Acts, Food Sanitation Act, Cold Storage Act with Rules and Regulations,” published by the California State Board of Health, October 1, 1916, under the title “Standards of Purity,” among the standards set up are the following:

“*Condensed skim milk* is skim milk from which a considerable portion of water has been evaporated, and contains not less than eighteen per cent of milk solids.” (P. 38.)

“*Cocoanut oil* is the oil obtained from the kernels of the cocoanut (*Cocos nucifera* L.) and subjected to the usual refining processes and free from rancidity.” (P. 50.)

FLORIDA.

Section 13, Chapter 5662, Acts of 1907, as amended by Section 15, Chapter 6122, Acts of 1911, and Section 15, Chapter 6541, Acts of 1913 (Section 1143 L, Compiled Statutes, West Publishing Company, 1914) adopts for Florida the definitions and standards of foods and drugs established

under the Federal Pure Food and Drugs Act and makes it the duty of the State Commissioner of Agriculture, with the advice of the State Chemist, to establish rules and regulations in conformity thereto.

In a pamphlet published July, 1913, by the Department of Agriculture of the State of Florida, entitled "Standards of Purity for Food Products," among the standards set forth are the following:

"*Skim milk* is milk from which a part or all of the cream has been removed and contains not less than nine and one-quarter (9.25) per cent. of milk solids." (P. 7.)

"*Condensed skim milk* is skim milk from which a considerable portion of water has been evaporated." (P. 8.)

"*Cocoanut oil* (a) is the oil obtained from the kernels of the cocoanut (*Cocos nucifera* L.) and subjected to the usual refining processes and free from rancidity." (P. 25.)

GEORGIA.

Section 21 of the Food and Drug Act of Georgia, enacted August 21, 1906, (Section 2115, Park's Annotated Code of Georgia, 1914) makes it the duty of the Commissioner of Agriculture and the State Chemist to fix standards for food products where the same are not fixed by the Chapter of which such Section is a part, in accordance with those promulgated by the Secretary of Agriculture, the Secretary of the Treasury, and the Secretary of Commerce and Labor of the United States. No standard is fixed in such Chapter for milk, milk products or cocoanut oil.

In a pamphlet, Serial No. 50, Bulletin Georgia Department of Agriculture, published under the supervision of the Commissioner of Agriculture

of Georgia in 1911, the following "Food Standards" are set forth:

"*Skim milk* is milk from which a part or all of the cream has been removed, and contains not less than nine and one-quarter (9.25) per cent. of milk solids." (P. 48.)

"*Condensed skim milk* is skim milk from which a considerable portion of water has been evaporated." (P. 48.)

"*Cocoanut oil* is the oil obtained from the kernels of the cocoanut (*Cocos nucifera* L.) and subjected to the usual refining processes and free from rancidity." (P. 72.)

IDAHO.

Chapter 196 of the Laws of 1911 adopts for Idaho the standards for food, liquors, drugs and strong drinks which have been promulgated by the Secretary of Agriculture of the United States.

ILLINOIS.

Section 39 of the Act of May 14, 1907, p. 543, (Paragraph 10778 of Jones & Addington's Illinois Statutes Annotated, 1913) defines standards for certain articles of food and provides that all other articles of food offered for sale or sold shall conform to requirements as to standards adopted from time to time by State Food Standard Commission. No standard for skimmed milk, condensed skimmed milk or cocoanut oil is prescribed in said statute.

In a legal notice published in the Chicago Daily Tribune, January 14, 1914, by the Illinois State Food Standard Commission, among the "Standards for Food Products" therein set forth are the following:

"*Skim milk* is milk from which a part or all of the cream has been removed, and contains not less than nine and one-quarter (9.25) per cent of milk solids."

"Condensed skim milk is skim milk from which a considerable portion of water has been evaporated."

"Cocoanut Oil is the oil obtained from the kernels of the cocoanut (*Cocos Nucifera* L.) and subjected to the usual refining processes and free from rancidity."

INDIANA.

Sub-division 7 of the Acts of 1907, page 153 (Section 7644, Burns' Annotated Statutes of Indiana) authorize the State Board of Health to adopt minimum standards of food. In a pamphlet entitled "Book of Instructions to Health Authorities," published by the Indiana State Board of Health, among the "Rules" of said Board of Health regulating minimum standards for food and drugs are the following:

"Skimmed milk is milk from which a part or all of the cream has been removed and contains not less than nine and one-quarter (9.25) per cent. of milk solids" (p. 62).

"Condensed skim milk is skim milk from which a considerable portion of water has been evaporated" (p. 62).

"Cocoanut oil is the oil obtained from the kernels of the cocoanut (*Cocos nucifera* L.) and subjected to the usual refining processes and free from rancidity" (p. 79).

KANSAS.

Chapter 266 of the Laws of 1907, Section 14, as amended by Laws of 1909, Chapter 184, Section 5, adopts the Federal standards of food and drugs until other standards are prescribed by the State Board of Health, and provides that such State standards when adopted supersede the Federal standards. In a pamphlet published by the Kansas Board of Health entitled "Kansas Food and

Drugs Law, and Rules and Regulations," May, 1911, among the "Food Standards" are the following:

"*Skim Milk* is milk from which a part or all of the cream has been removed, and contains not less than nine and a quarter (9.25) per cent of milk solids" (p. 25).

"*Condensed Skim Milk* is skim milk from which a considerable portion of water has been evaporated" (p. 25).

Cocoanut Oil is the oil obtained from the kernels of the cocoanut (*Cocos nucifera* L.) and subjected to the usual refining processes and free from rancidity" (p. 40).

KENTUCKY.

Chapter 53a, Act of March 13, 1908 (Sub-section 8 of Section 1905a, Carroll's Kentucky Statutes, 1915), authorizes the Director of Agricultural Experiment Station to adopt standards of purity, quality and strength for foods when such standards are necessary or are not specified or fixed by statute. Among the "Food Standards" contained in a pamphlet published by the Kentucky Agricultural Experiment Station and stated on the cover of said pamphlet to be "Standards Fixed for Guidance in the Enforcement of the Kentucky Food and Drug Law in Accordance with Section 8 thereof" are the following:

"*Skim milk* is milk from which a part or all of the cream has been removed, and contains not less than nine and one-quarter (9.25) per cent of milk solids" (p. 6).

"*Condensed skim milk* is skim milk from which a considerable portion of water has been evaporated" (p. 6).

"*Cocoanut oil* is the oil obtained from the kernels of the cocoanut (*Cocos nucifera* L.) and subjected to the usual refining processes and free from rancidity" (p. 20).

LOUISIANA.

Sections 3 and 4 of Act 282, Laws of 1914, p. 567 (Paragraph 692 Marr's Annotated Revised Statutes of Louisiana), provides for examination of specimens of foods and drugs by State Board of Health to determine whether such articles are adulterated or misbranded within the meaning of such Act and authorizes such Board to make uniform rules and regulations for carrying out the purposes of the Act.

Regulation 24 set forth in a pamphlet issued in 1915 entitled "The Food and Drug Regulations of the State of Louisiana, adopted by the Louisiana State Board of Health", reads as follows (p. 16):

"Excepting specific laws passed by the Legislature of the State of Louisiana, and excepting all regulations in the Sanitary Code of the State of Louisiana, and excepting such regulations on poisons and habit-forming drugs and sanitary matters as may be put into the Sanitary Code of the State of Louisiana, all food and drug standards and decisions made by the United States Government or its authorized officials shall be official, and are hereby adopted by the Louisiana State Board of Health as its standards."

No standards for skimmed milk, condensed skimmed milk or cocoanut oil are prescribed in any statute of Louisiana.

MASSACHUSETTS.

Section 1, Acts of 1911, Chapter 610 as amended by Acts of 1912, Chapter 474, requires every container of condensed milk or condensed skimmed milk to have labeled thereon or attached thereto a formula for extending such milk with water.

The formula shall be such that the resulting milk product is not below the minimum standard for whole milk if such article is condensed milk or for skimmed milk if such article is condensed skimmed milk.

Section 55, Revised Statutes, provides for the punishment of any person selling skimmed milk containing less than nine and three-tenths (9.3) per cent milk solids exclusive of fats.

MICHIGAN.

Act 64, Laws of 1913, Section 1, adopts the Federal statutes for purity of foods as the standards for Michigan except in cases where other standards are prescribed by the Laws of Michigan. Act 176, Laws of 1913, requires every container of condensed milk to have labeled thereon or attached thereto a formula for extending such milk with water. The formula shall be such that the resulting milk product is not below the Michigan standard for whole milk or the Michigan standard for skimmed milk if such article is condensed skimmed milk. Section 12, Act of June 29, 1889, Act 219 (Section 3251 Howell's Michigan Statutes 1913) requires skimmed milk to have a specific gravity at 60 degrees Fahrenheit not less than 1.032 and not more than 1.037.

MINNESOTA.

In a pamphlet issued by the Dairy and Food Commissioner of Minnesota, entitled "Manual of the Dairy and Food Laws and Rules and Regulations", 1913, at page 88 thereof the following is among the general regulations and standards therein contained:

"Condensed Skim Milk, is skim milk from which a considerable portion of water has

been evaporated and of which sugar (sucrose) may or may not have been added. The name and address of the manufacturer or jobber shall appear upon the label."

Section 3645, General Statutes Minnesota, 1913, states that, notwithstanding the provisions of Section 3644, General Statutes of Minnesota, 1913, prescribing standards for milk products, the sale of skim milk is expressly permitted by licensed dealers.

MISSISSIPPI.

Section 6, Chapter 132, Acts of 1910, makes it the duty of the State Chemist to fix and publish the Federal standards of purity of food as the standards for Mississippi.

MISSOURI.

By Section 4 of an Act approved March 15, 1907, food is declared to be adulterated:

"10. If it does not conform to the standard of strength, quality and purity now or hereafter to be established by the United States Department of Agriculture".

Among the "definitions and standards" of purity for dairy products established by an Act approved June 14, 1909, Section 9, are the following:

"Skim milk is milk from which a part or all of the cream has been removed and contains not less than nine and one-quarter (9.25) per cent of milk solids, not less than eight and one-half (8.5) per cent of milk solids not fat".

"Condensed skim milk is skim milk from which a considerable portion of water has been evaporated".

In a pamphlet published by the Missouri Department of Food and Drug Inspection, January

1, 1910, under the heading "Food Standards", on page 79, the Federal standard for cocoanut oil is set forth.

NEVADA.

Subdivision 3 of Section 3488, Revised Laws of Nevada, 1912, being Section 3 of the Food and Drug Inspection Act approved March 13, 1909, reads as follows:

"The standard of purity of foods, drugs and liquors shall be that proclaimed by the Secretary of the United States Department of Agriculture."

NEW HAMPSHIRE.

Section 17, Chapter 127, Public Statutes, reads as follows:

" * * * If upon analysis any milk shall be found to contain less than twelve per cent. of milk solids, or in the case of skim milk, less than eight and one-half per cent. of milk solids, exclusive of fat, * * * such products shall not be deemed as of standard quality; * * *."

Section 9, Chapter 269 of the Public Statutes, and Section 7 of an Act approved March 7, 1907, confer upon the State Board of Health authority to promulgate rules and regulations to secure pure foods.

In a pamphlet containing the rules and regulations for the enforcement of the Food and Drug Laws of the State of New Hampshire, published by the State Board of Health in 1912, the following regulation is set forth at page 46:

"Regulation 37. Standards of Purity for Food Products.

"Where not otherwise provided, the standards of purity for food products shall be those adopted and in use by the United States Department of Agriculture."

NEW JERSEY.

Chapter 217, Laws of 1907, Section 28, permits the State Board of Health to adopt for any food whose standard has not been fixed by any law of New Jersey the standard of purity, quality or strength established and published by the Secretary of the Department of Agriculture of the United States. In a pamphlet published by the Board of Health of the State of New Jersey in 1910, under the heading "Food Standards", are the following regulations:

"*Skim milk* is milk from which a part or all of the cream has been removed and contains not less than nine and one-quarter (9.25) per cent. of milk solids." (p. 43).

"*Condensed skim milk* is skim milk from which a considerable portion of water has been evaporated." (p. 43).

"*Coconut oil* is the oil obtained from the kernels of the coconut (*Cocos nucifera* L.) and subjected to the usual refining processes and free from rancidity." (p. 54).

Section 47, Compiled Statutes, First Supplement, page 71, recognizes and regulates the sale of condensed skimmed milk and provides that such milk must be sold in labeled cans and must not violate the Pure Food Law of the State.

OKLAHOMA.

Article 1, Chapter 18, Laws of 1909, known as the Oklahoma Food and Drug Law, Section 4, reads as follows:

"The standard of purity of foods, drugs and liquors shall be that proclaimed by the Secretary of the United States Department of Agriculture."

In a pamphlet published by the Oklahoma State Health Department, July 1, 1911, under the heading "Food Standards", are the following regulations:

"Skim milk is milk from which a part or all of the cream has been removed, and contains not less than nine and one-quarter (9.25) per cent of milk solids." (p. 28).

"Condensed skim milk is skim milk from which a considerable portion of water has been evaporated." (p. 28).

"Coconut oil is the oil obtained from the kernels of the coconut (*Cocos nucifera* L.) and subjected to the usual refining processes and free from rancidity." (p. 42).

RHODE ISLAND.

Under the provisions of Section 12 of Chapter 1597 of the Laws of 1908 it is the duty of the Board of Food and Drug Commissioners to adopt minimum standards of strength, purity and quality for foods. Said section contains the further provision that such rules and standards shall not be more stringent than, nor conflict with, the rules and standards adopted or which may thereafter be adopted for the enforcement of the Federal Pure Food and Drugs Act.

In a pamphlet issued by the Board of Food and Drug Commissioners in 1908 under the heading of "Rules Regulating Minimum Standards of Purity for Food and Drugs, and Defining Specific Adulterations" are contained the following regulations:

"*Condensed skim milk* is skim milk from which a considerable portion of water has been evaporated" (p. 14).

"*Cocoanut oil* is the oil obtained from the kernels of the cocoanut (*Cocos nucifera* L.) and subjected to the usual refining processes and free from rancidity" (p. 33).

TEXAS.

In the Fourth Annual Report of the Dairy and Food Commissioner of Texas, August 31, 1911,

the following "Food Standards", prescribed under authority of Section 16, Chapter 47, Laws of 1911, are set forth:

"*Skim milk* is milk from which a part or all of the cream has been removed and contains not less than nine and one-quarter (9.25) per cent of milk solids" (p. 49).

"*Condensed skim milk* is skim milk from which a considerable portion of water has been evaporated" (p. 49).

"*Cocoanut oil* is the oil obtained from the kernels of the cocoanut (*cocos nucifera* L.) and subjected to the usual refining processes and free from rancidity" (p. 58).

UTAH.

Sections 742 and 743 of the Compiled Laws of Utah, 1907, regulate the sale of skim milk and provide that such skim milk must contain nine per cent of milk solids exclusive of fats.

VERMONT.

Section 5476, of Chapter 226, of the Public Statutes of Vermont, being the Food and Drugs Act, authorizes the State Board of Health to adopt rules and regulations to facilitate the enforcement of the provisions of said Chapter. Among the "Rules and Regulations" adopted by such Board for the enforcement of said law as contained in a pamphlet published in 1914 under the authority of said Board, are the following:

"*Skim milk* is milk from which a part or all of the cream has been removed and contains not less than nine and one-quarter (9.25) per cent of milk solids" (p. 33).

"*Condensed skim milk* is skim milk from which a considerable portion of water has been evaporated" (p. 34).

"*Cocoanut oil* is the oil obtained from the kernels of the cocoanut (*Cocos nucifera* L.)

and subjected to the usual refining processes and free from rancidity" (p. 49).

WISCONSIN.

Section 4601—4a of the Dairy and Food Laws of Wisconsin reads as follows:

"Food products; definitions; standards.
Section 4601—4a. In all prosecutions arising under the provisions of these statutes relating to the manufacture or sale of an adulterated, misbranded or otherwise unlawful article of food, the following definitions and standards for food products shall be the legal definitions and standards, to wit:"

* * * * *

(5) * * *

"Skim milk is milk from which a part or all of the cream has been removed, and contains not less than nine percent of milk solids."

* * * * *

"Condensed skim milk is skim milk from which a considerable portion of water has been evaporated."

* * * * *

"Cocoanut oil is the oil obtained from kernels of the cocoanut (*Cocos nucifera* L.) and subjected to the usual refining processes and free from rancidity."

WYOMING.

Section 5, Chapter 107, Laws of 1913, authorizes the Dairy Food and Oil Commissioner to adopt the standard of purity for foods as laid down by the United States Department of Agriculture and to promulgate and enforce the necessary rules and regulations. In a pamphlet published under the authority of the said Commissioner in 1913, among the "Standards of Purity for Food Products" therein contained are the following:

"Skimmed milk is milk from which a part or all of the cream has been removed and con-

tains not less than nine and one-quarter (9.25) per cent. of milk solids" (pp. 37-38).

"*Condensed skim milk* is skim milk from which a considerable portion of water has been evaporated" (p. 38).

"*Cocoanut oil* is the oil obtained from the kernels of the cocoanut (*Cocos nucifera* L.) and subjected to the usual refining processes and free from rancidity" (p. 58).

FILE COPY

FILED

DEC 10 1918

JAMES D. MAHER,
CLERK

IN THE
SUPREME COURT OF THE UNITED STATES.
OCTOBER TERM, 1918.

No. 664.

THE HEBE COMPANY AND CARNATION MILK PRO-
DUCTS COMPANY, CORPORATIONS, PLAINTIFFS IN ERROR,

vs.

NORMAN E. SHAW, SECRETARY OF AGRICULTURE OF
OHIO; THOMAS C. GAULT, CHIEF OF BUREAU OF DAIRY
AND FOODS OF THE BOARD OF AGRICULTURE OF OHIO, AND
OTHER OFFICERS AND AGENTS CLAIMING TO ACT UNDER
THE AUTHORITY OF SAID THE BOARD OF AGRICULTURE OF
OHIO, OR OF THE SECRETARY OF AGRICULTURE OF OHIO,
DEFENDANTS IN ERROR.

REPLY BRIEF OF APPELLANTS.

BRODE B. DAVIS,
THOMAS E. LANNEN,
AUGUSTUS T. SEYMOUR,

Attorneys for Appellants.

CHARLES E. HUGHES,
BRODE B. DAVIS,
THOMAS E. LANNEN,
AUGUSTUS T. SEYMOUR,

Of Counsel.



IN THE
SUPREME COURT OF THE UNITED STATES.
OCTOBER TERM, 1918.

No. 664.

THE HEBE COMPANY AND CARNATION MILK PRODUCTS COMPANY, CORPORATIONS, PLAINTIFFS IN ERROR.

vs.

NORMAN E. SHAW, SECRETARY OF AGRICULTURE OF OHIO; THOMAS C. GAULT, CHIEF OF BUREAU OF DAIRY AND FOODS OF THE BOARD OF AGRICULTURE OF OHIO, AND OTHER OFFICERS AND AGENTS CLAIMING TO ACT UNDER THE AUTHORITY OF SAID THE BOARD OF AGRICULTURE OF OHIO, OR OF THE SECRETARY OF AGRICULTURE OF OHIO, DEFENDANTS IN ERROR.

REPLY BRIEF OF APPELLANTS.

Appellees' brief proceeds upon the theory that appellants are food adulterators, reaping large profits by evading the pure food laws. This is absolutely unwarranted and tends to prejudice the court in considering the merits of the controversy. Following out this theory, appellees (Brief, p. 2)

claim the "right to presume" that the Carnation Milk Products Company was too careful of its reputation to market "Hebe" in its own name, and incorporated The Hebe Company to sell the product, while the Carnation Milk Products Company remained in the background, in order "to divert from the Carnation Milk Products Company any criticism or attack leveled at the adulterated product." All this unfair suggestion is entirely gratuitous. There is absolutely no evidence in this case that the Carnation Milk Products Company incorporated, or caused to be incorporated, The Hebe Company, nor is there any evidence from which such an inference can be drawn. In view of this statement of counsel for appellees, we feel that we may state to the court that such was not the fact. The facts are that one Clarence S. Stevens, with other co-inventors, discovered and perfected the process of making "Hebe" (Rec., p. 53), and placed it upon the market in February, 1915 (Rec., p. 55), under the name of "Hebe." The statements that the Carnation Milk Products Company found that large sums of money could be made by adulterating foods (Brief, p. 2); that it is "selling adulterated food in Ohio" (Brief, p. 3); that it is a "fool profiteer" (Brief, p. 16), have absolutely no foundation in the record. They are simply charges of illegal conduct and epithets, with no evidence or reason to support them. The insinuations in appellees' brief are so manifestly unjustified that we cannot pass them without notice. The fact that the Carnation Milk Products Company joins as complainant in this bill ought to dispel any suspicion that that company is ashamed of the product "Hebe," or is "too careful of its reputation to market this product under its own name." Throughout appellees' brief "Hebe" is characterized as "an adulteration," a "shrewd imitation" (Brief, p. 41), etc., being "palmed off" on soldiers of the United States, etc. (Brief, p. 28). All these accusations are leveled against a product which has the specific approval of the United States Department of Agriculture (Rec., p. 79).

"Hebe" is not condensed whole milk. It does not purport to be such. No claim that "Hebe" is adulterated can be based upon the proposition that it is condensed whole milk. All admit that it is *not* condensed whole milk.

According to this method of reasoning cocoa would be an adulteration of chocolate, and molasses candy and molasses itself would be an adulteration of sugar.

On pages 14 and 15 of appellees' brief attention is drawn to certain sections of the Ohio Code, which it is claimed make "Hebe" an adulteration. These serve to confuse rather than to enlighten the Court upon the issues in this case.

Section 5778 contains six definitions of what shall be deemed adulteration in the case of food. It is said by appellees that "Hebe" is adulterated under the second definition because a cheaper substance has been substituted for butter fat, and it is adulterated under the third definition because a valuable ingredient has been removed from it, and it is adulterated under the fourth definition because it is an imitation of and sold under the name of another article, to wit, milk, and it is adulterated under the sixth definition because it is made to appear of better value than it is.

The fallacy of the above contentions is, that "Hebe" is not sold as condensed whole milk or as whole milk. Therefore, under the second definition, a cheaper substance has not been substituted for "Hebe"; under the third definition a valuable ingredient has not been removed from "Hebe"; under the fourth definition the product is not an imitation of or sold under the name of milk, because it is sold as "Hebe" and not as milk; and under the sixth definition the product is not made to appear better than "Hebe." In other words, in order to apply these definitions of adulteration it is necessary to have as a premise a certain product which is labeled and sold as and for such product, and then to determine what has been added to this product or subtracted therefrom, down through the list of definitions of adultera-

tion. If this were not so it would be impossible to sell any manufactured product, because every manufactured product is subjected to some degree of addition or subtraction in the process of manufacture. This question is disposed of, so far as the State of Ohio is concerned, by the decision of the Court in—

Rose vs. State, 11 Ohio Cir. Ct. Rep., 87,

referred to on page 33 of our original brief. In that case the identical definitions of adulteration referred to above were construed by the Court.

Section 12717 of the Ohio Code, referred to on page 15 of appellees' brief, prohibits the sale of milk to which water or any foreign substance has been added. This section plainly has nothing to do with the issues involved in the present case. It deals with watered whole milk. If this section were construed to apply to every article into which milk entered in any form, it would prohibit the sale of ice cream, milk chocolates, malted milk, all sorts of mixed milk drinks, etc. Such a construction of the section would be absurd, and a similar statute in Massachusetts has been held to apply to whole milk and not to condensed milk.

Commonwealth vs. Boston White Cross Milk Co., 207 Mass., 30.

Appellees, on page 28 of their brief, seek to make much of the supposed fraud in the sale of "Hebe" by the Monypeny-Hammond Co., of Columbus, Ohio, to Camp Willis to be supplied to soldiers in that camp. The evidence pertaining to the Camp Willis sale was given by Quartermaster Arthur W. Reynolds (Rec., pp. 79, 80, 81), and in substance is to the effect that during August, 1916, the Quartermaster's Department of Camp Willis was in the habit of sending out to the trade about every five days proposals or specifications for evaporated milk needed to supply the soldiers in the camp; that these specifications were sent to the

Monypeny-Hammond Company as well as to other companies; that the Monypeny-Hammond Company furnished two or three brands of milk to the camp; that they furnished some "Hebe," but the witness did not know how much; that the first lot of "Hebe" so furnished was placed in the store-room and issued, but that before the second shipment was issued, there was a protest against it, and it was returned. On cross-examination, witness testified that he could not say whether he had looked at the labels or not. This is all that appears in the record concerning the Camp Willis incident. It seems incredible that the Quartermaster's Department of Camp Willis could have been misled or defrauded, because the Hebe which was delivered to the camp was plainly labeled to show just what it was. The evidence does not show whence the protest came,—whether from the soldiers, the public, competitors of appellant, or the Ohio State Dairymen's Association, whose president testified on the hearing that he "wants to keep this product (Hebe) out of the State of Ohio" (Rec., p. 127). It is upon this most fragile foundation that appellees base their charge of fraud against the Monypeny-Hammond Company "contracting to deliver standard condensed milk, contracting to receive pay for it, and unable to resist the temptation to make the increased profit, sending in a commodity which cost it less money than standard condensed milk, palming off on soldiers of the United States an adulterated article when they were paid for furnishing a standard article" (Brief, p. 28).

Of course, the complainants are not shown to have had any knowledge of this transaction, and it is not claimed that they had such knowledge.

The second instance cited by appellees of deception in sales of Hebe is in the case of a sale of Edwin James, as inspector of the Department of Agriculture of Ohio. This matter is developed upon page 28 of appellees' brief, and is based upon the testimony of a State inspector, to the effect that on May 11, 1917, he went into Schreiber's grocery

store in Ironton, Ohio, and asked the "lady clerk" if they had any condensed milk; that she stated that they had the "Hebe" brand and *witness* then said "*That will do. Give me two cans.*" Aside from the fact that this testimony is furnished by a State inspector, it should be noted that he hastily took "Hebe," saying, "*That will do,*" without asking what "Hebe" was, or making any further inquiry. His object was to procure evidence. And when the clerk gave him the two cans, each can told him plainly what "Hebe" was. The same inspector also furnishes testimony as to the sale to him of "Hebe" in East Ironton, Ohio, his testimony on this point being commented on in appellants' original brief (p. 29). It will be noted that the storekeeper said "I have 'Hebe' also, * * * for you see it" (Rec., p. 81). There was no possible deception, as the "Hebe" label spoke for itself.

The only other instance of alleged deception in the sale of "Hebe" is referred to upon pages 28 and 29 of appellees' brief, and consists of an advertisement of "Hebe Milk" in the "Columbus Citizen" dated Friday, April 21, 1916, by the Fulton Market, a retail grocery store, of Columbus, Ohio. The total advertisement is about four inches wide and six inches long, and the part referring to "Hebe Milk" consists of only three lines in the corner, in small type, and reading as follows: "Hebe Milk. Large regular 10-cent cans, Saturday, 2 cans, 15 cents."

These isolated instances are the only evidence which appellees produced to substantiate their much-reiterated arguments that deception is widely practiced in the sale of "Hebe" in Ohio. They have strained these small incidents in an effort to make a mountain out of a mole hill. In none of these cases was it shown, nor is it even claimed that the complainants had any knowledge whatever of the transactions.

It is worthy of note that not a single consumer in the

State of Ohio is produced as a witness or is shown to have made any complaint of deception.

Appellees contend that it cannot be urged upon any sensible mind that "Hebe" is a compound; that the relative proportions of the condensed skimmed milk and the cocoanut oil are not such as to create a compound; that if "Hebe" is held to be a compound it will open the door for food profiteers to evade the law by the addition of an infinitesimal amount of a foreign article to an adulterated product and to claim that the result is a compound.

We had occasion to comment upon this point in our original brief (Brief, p. 23). "Hebe" is not a subterfuge, and appellees are forced to this contention by the necessities of their case. The fact is, that "Hebe" is the result of a scientific development. It is an invention of a new product and marks an advance in food science.

Whole milk differs from skimmed milk. The difference consists in the removal of a very small percentage of the whole milk, consisting of butter fat. If we consider only the amount of butter fat removed, we might say that there had been no substantial change effected. But when we consider the effect upon the product resulting from the abstraction of the butter fat, it is plain that a substantial change has been brought about. Every one recognizes the difference between skimmed milk and whole milk. To reverse the operation, by combining and emulsifying skimmed milk with even a small amount of vegetable fat (but that amount being practically equal to the butter fat removed), a decided change is effected in the product. In the latter case, there is the same difference between the skimmed milk and the emulsified product as there is in the former case between the whole milk and the skimmed milk.

The small amount of vegetable fat found in "Hebe" is not the result of an attempt to evade the law. It is as large an amount as the butter fat in whole milk, "which rarely has six per cent of butter fat, and as a rule it shows less than

four per cent" (Rec., p. 62). It is the amount necessary "to produce a properly and correctly balanced food" (Rec., p. 69). The good faith of appellants in manufacturing and selling "Hebe" seems to us too evident to require argument. "Hebe" is not a subterfuge. It is not adulterated milk with a small percentage of some unimportant article added (Appellees' Brief, p. 17). It is a pure, wholesome, and nutritious food compound, labeled and sold honestly and fairly.

Appellees (Brief, p. 29) seek to make much of the fear that "Hebe" will be used as a baby food, especially by the poor, and say that if "Hebe" were fed continuously to an infant its growth would cease, and if the feeding were long persisted in the child would die. This is another gratuitous statement of counsel, with absolutely no evidence in the record to support it. The inference sought to be drawn is that condensed whole milk is especially adapted as a food for infants, while "Hebe" is not. The only evidence in the record on this point is that "no condensed milk or evaporated milk is an ideal baby food, although it may be used in some circumstances, but would not be used as a matter of choice" (Dr. Wilson, Rec., p. 62), and further that "as between whole condensed milk and 'Hebe' for infant food the one is as valuable for nutritive purposes as the other" (Rec., p. 62); and 'Hebe' is as fit for infant food as condensed whole milk or evaporated whole milk" (Dr. Wesener, Rec., p. 72). Appellees contend that the purely supposititious superiority of condensed whole milk to "Hebe" as a food for infants justifies the State of Ohio in absolutely prohibiting the sale of "Hebe." In another part of their brief (p. 40) it is said that the people of Ohio have abundant opportunities to get all the skimmed milk which they desire. This argument is apparently used to show that the public will not suffer if condensed skimmed milk is driven from the market. Why is it that appellees are so indifferent to the sale of uncondensed skimmed milk in Ohio, and so fearful that the people may use the *condensed* skimmed milk in "Hebe"? It is

said that the condensed skimmed milk in combination in the product "Hebe" might be fed to babies, and that this would stunt their growth and they would die. But there is no law in Ohio to prevent the feeding of uncondensed skimmed milk to babies, and if the sale of condensed skimmed milk is forbidden, so that the Ohio babies cannot be fed with it, then the logic of the situation demands that the sale of uncondensed skimmed milk in Ohio, now expressly permitted, be prohibited, so that the babies may be protected.

Appellees say (Brief, p. 14) that fraud is more easily carried out in connection with condensed milk than with uncondensed milk, because the condensed milk is sealed securely in cans and the consumer buys it at the grocery store and takes it home, and it may be days or weeks before he uses it, and then he finds out for the first time what is in the can. If he finds out what it is when he uses it, there is no excuse for his feeding it to his babies, and if he takes the can home and keeps it for weeks, and during all that time a plain label is on the can telling him that the product is not whole condensed milk, but is in fact "Hebe," a compound of condensed skimmed milk and cocoanut oil, then the fact that he has the can in the house for several weeks and each time he uses it he is confronted with the label, seems to us to amply guard him against fraud and apprise him of the character of the food which he is about to use. Again, there is no statement on the label of "Hebe" that it is a food for infants, nor is there anything thereon from which any such inference can be drawn.

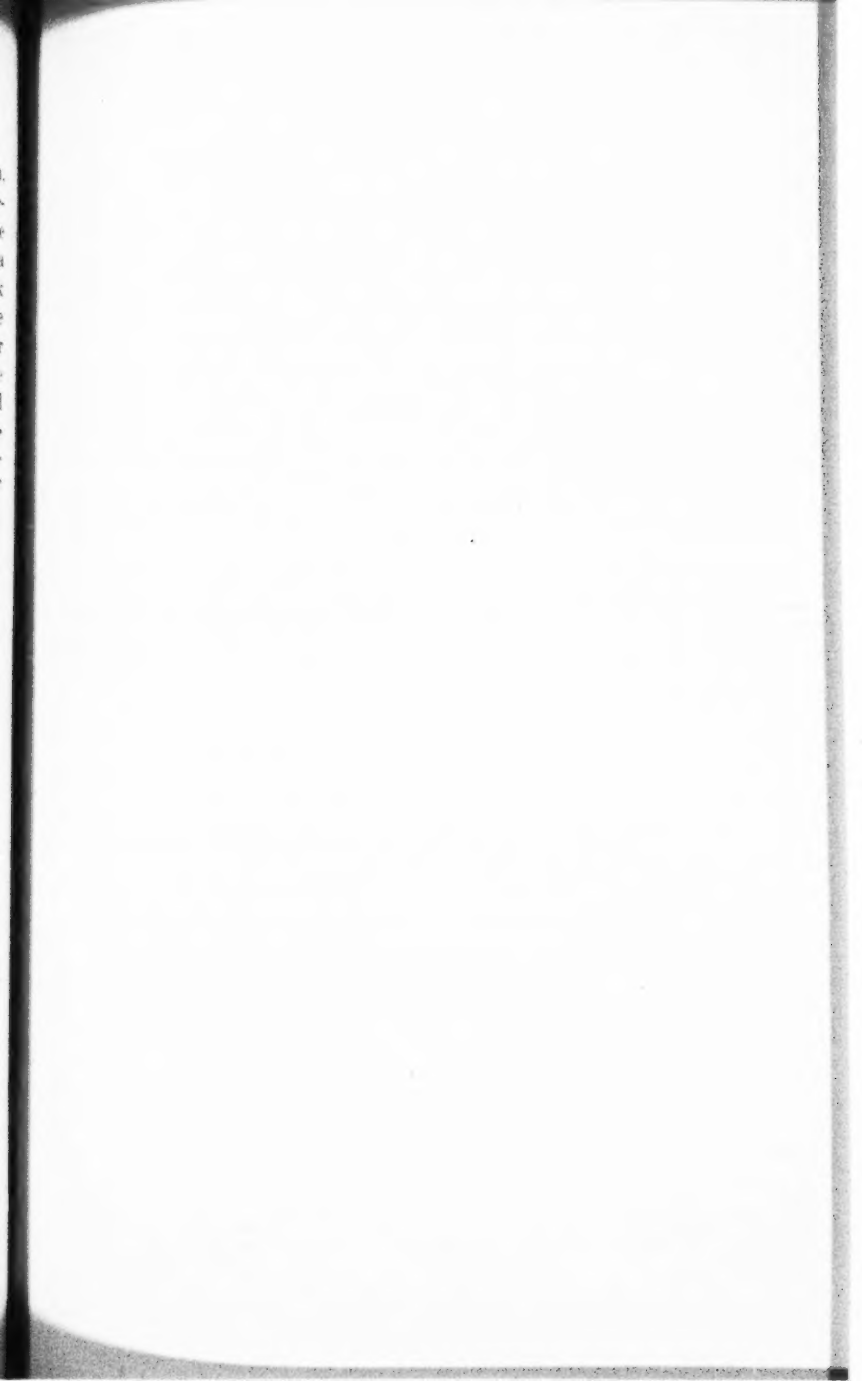
Furthermore, under the Ohio statutes, skimmed milk may be lawfully sold if the can or vessel from which or in which such skimmed milk is sold is labeled with the words "skimmed milk" in letters not less than 1 inch in length (section 12720, Ohio Code, Rec., p. 6). The dishonest milkman may drive his milk wagon to a home and draw off a

pint of skimmed milk from a can standing in his wagon, such can being labeled as prescribed by the statute, and deliver that pint of milk to a poor family as and for whole milk. He can make his product attractive by selling it a little cheaper than whole milk. The mother takes this milk and feeds it to her babies. There is no argument upon the proposition that this skimmed milk would not be as good for the babies as "Hebe" is, because the skimmed milk would be entirely devoid of fat. In the meantime, the parents would have no opportunity to find out what kind of milk they were buying. They would have no can before them in their home, as they have in the case of "Hebe," stating plainly of what the product consisted. They would be obliged to depend almost entirely upon the honesty of the milkman.

Yet, with all these possibilities of danger in the sale of skimmed milk, appellees seek to impress upon the Court the fact that if "Hebe" is prohibited in Ohio the people can still get skimmed milk in an uncondensed form. Appellees seem to have no apprehension that the poor of the State may prefer to buy the skimmed milk or be obliged to buy it because of the cheaper price, and that there is danger that this skimmed milk may be fed to the babies of the poor. The whole argument concerning the baby food feature of the case is without merit and is brought forward in an attempt to prejudice the real issues in the controversy.

CHARLES E. HUGHES,
 BRODE B. DAVIS,
 THOMAS E. LANNEN,
 AUGUSTUS T. SEYMOUR,

Of Counsel for Appellants.



SUBJECT INDEX.

	PAGES
STATEMENT	1
BRIEF OF ARGUMENT	4
POINTS	
I. The food product "Hebe", whether a pure and wholesome product or not and whether plainly and fairly labeled or not, is within the condemnation of the legislation of the state of Ohio and may not lawfully be sold in Ohio	8
II. The prohibition of the sale of the product "Hebe" in Ohio is not an unconstitutional interference with interstate commerce. The appellants are not entitled to be protected against interference with sales in the original packages and the prohibition of the statute is not repugnant to the Federal Food and Drugs Act	18
III. The prohibition by the legislature of Ohio of the sale of "Hebe" in Ohio, construed by the court below, is a valid exercise of the police power of the state and is not invalid as a deprivation of liberty and property and a denial of the equal protection of the laws, contrary to the 14th Amendment	24
IV. The bill of complaint should be dismissed for want of equity and the decree should not be reversed or the cause remanded	40

CASES.

	PAGES
Austin v. Tenn., 179 U. S. 343.....	21
Armour v. North Dakota, 240 U. S. 510.....	31
Atlantic Coast Line Railroad Co. v. State of Georgia, 234 U. S. 280-288.....	25
Bissot v. State, 53 Ind. 408.....	10
Barker v. State, 69 O. S. 68.....	10
Brown v. Maryland, 25 U. S. 419.....	20
Butler v. Chambers, 36 Minn. 69.....	33
Conrad v. State, 75 O. S. 52.....	10
Commonwealth v. Boston White Cross Milk Co., 209 Mass. 30.....	11
Cook v. County of Marshall, 196 U. S., 261.....	21
Commonwealth v. Waite, 11 Allen 264.....	35
Central Lumber Co. v. South Dakota, 226 U. S. 157.....	38
Dorsey v. Texas, 38 Tex. Crim. Rep. 527.....	35
Ex-parte Hayden, 147 Cal. 649.....	34
Genesee Valley Milk Products Co. v. J. H. Jones Corporation, 143 App. Div. N. Y. 624, 626, 627..	11
German Alliance Ins. Co. v. Kansas, 233 U. S. 389.....	38
Hutchison Ice Cream Co. v. Iowa, 242 U. S. 153..	12
In re Bresnahan, Jr., 18 Fed. Rep. 62.....	33
Jeffrey v. Blagg, 235 U. S. 571.....	37
Leisy v. Hardin, 135 U. S. 100, 124.....	22
Lindsley v. National Carbonic Gas Co., 220 U. S. 61.....	38
McDermott v. Wisconsin, 228 U. S. 115.....	22

	PAGES
Purity Extract Co. v. Lynch, 226 U. S. 192.....	20
Price v. Illinois, 238 U. S. 446.....	21
Plumley v. Massachusetts, 155 U. S. 461.....	22
Powell v. Pennsylvania, 127 U. S. 678.....	31
People v. Biesecker, 169 N. Y. 53	33
People v. Marx, 99 N. Y. 377.....	33
Powell v. Commonwealth, 114 Pa. St. 265.....	33, 35
Ryder v. State of Maryland, 109 Md. 235.....	13
Rast v. Van Deman & Lewis Co., 240 U. S. 342- 357	25, 37
Rigbers v. City of Atlanta, 7 Ga. App. Rep. 411..	34
State v. Brown, 7 Oregon 186.....	10
State v. Vause, 84 O. S. 210, 215, 216.....	10
State v. Crescent Creamery Co., 83 Minn. 284.....	10
Schallenberger v. Pennsylvania, 171 U. S. 1.....	20
Sligh v. Kirkwood, Sheriff, Etc., 237 U. S. 52....	21
Savage v. Jones, 225 U. S. 501.....	21
Schmidinger v. Chicago, 226 U. S. 578.....	31
State v. Hanson, 118 Minn. 85.....	34
State v. Capital City Dairy Co., 62 O. S. 246....	36
(Affirmed Capital City Dairy Co. v. State, 183 U. S. 238).....	36
State v. Rippeth, 71 O. S. 85, 87.....	36
State v. Addington, 77 Mo. 110.....	33
Toledo, Wabash & Western Ry. Co. v. Jackson- ville, 67 Ill. 37, 40.....	34
U. S. v. Hartwell, 73 U. S. 385.....	10
Waite et al v. Macy et al, 246 U. S. 606.....	32

IN THE SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1918.

NO. 664.

THE HEBE COMPANY AND CARNATION
MILK PRODUCTS COMPANY, CORPORA-
TIONS,

PLAINTIFFS IN ERROR,

VS.

NORMAN E. SHAW, SECRETARY OF AGRICUL-
TURE OF OHIO, THOMAS C. GAULT, CHIEF
OF BUREAU OF DAIRY AND FOODS OF
THE BOARD OF AGRICULTURE OF OHIO,
AND OTHER OFFICERS AND AGENTS
CLAIMING TO ACT UNDER THE AUTHOR-
ITY OF SAID THE BOARD OF AGRICUL-
TURE OF OHIO, OR OF THE SECRETARY
OF AGRICULTURE OF OHIO,

DEFENDANTS IN ERROR.

APPEAL FROM THE DISTRICT COURT OF THE UNITED
STATES, SOUTHERN DISTRICT OF OHIO, EASTERN
DIVISION.

BRIEF AND ARGUMENT FOR APPELLEES.

STATEMENT OF THE CASE.

In the Bill of Complaint filed in the District Court, Appellants sought to enjoin the Secretary of Agriculture of Ohio, and other officers from prohibiting the sale of

Hebe in that state. The Carnation Milk Products Company, one of the Appellants, evidently produces a grade of condensed milk which stands very high in the market. In fact it is so near natural milk that it may be used for infant food when properly modified by a physician's advice. Rec. pp. 65-66) This company is engaged in the manufacturing of milk products in Wisconsin and probably in other places, and like many other manufacturers of food, it found out that large sums of money could be made by adulterating foods if there were no laws on the subject of adulteration. It extracted from natural milk a pound of butter fat and sold it for about 37 cents (Rec. p. 55). It substituted for this, the most important ingredient of natural milk, a vegetable oil, known as cocoanut oil, which it bought at 17 $\frac{3}{4}$ cents per pound (Rec. p. 58), then it canned the skimmed milk and the cocoanut oil, thus saving 19 $\frac{1}{4}$ cents on each pound of butter fat. It condensed and canned this in a form so much like ordinary condensed milk that the public was sure to be deceived. It sold this adulterated product in Ohio and was stopped by the Secretary of Agriculture.

We have the right to assume that the Carnation Milk Products Company was too careful of its reputation to market this product in its own name and accordingly it incorporated a company under the name of The Hebe Company (Rec. p. 55), which according to the record was to sell the product, and as we have the right to presume, to divert from The Carnation Milk Company any criticism or attack levelled at the adulterated product.

The Secretary of Agriculture, after taking advice from the Attorney General of Ohio, (Rec. p. 11), stopped the sale of Hebe in Ohio because it was unlaw-

ial under the statutes of Ohio. Appellants in order to product their business of selling adulterated food in Ohio, brought a bill to restrain the Secretary of Agriculture from prosecuting the customers of Appellants or persons to whom the latter sold the products.

In their answer to the Bill of Complaint Appellees aver that the condensing of milk in the form of Hebe increases the facility with which the public may be deceived in believing that it is buying genuine condensed milk; that the nutritive quality of cream or the butter fat in milk is well and favorably known to the public and is especially known and used as the one food which alone will sustain life and produce growth; that it is therefore largely used for the purpose of nourishing infants, who receive no other food but milk; that the labels and advertisements used in connection with such products as "Hebe" in every instance contain the word "milk" at some place or in some form; that the retailers hold such product out to the public as milk; that being inferior to and cheaper than condensed whole milk, it is on account of this cheapness easy to sell to and is readily bought by the public; that if the oil substitute in such product has slight nutritive value, it is very inferior in life nourishing quality to the butter fat for which it is substituted and so much inferior that infants, fed upon the same exclusively, would starve; that the sale and scheme of such products as "Hebe" are based upon the well known value of butter fat, upon the fact that the latter is associated in the public mind with milk and upon the fact that retailers can and do easily sell such products from which the cream has been removed to the public for the genuine condensed milk; that on account of the great facility with which the public was and can be deceived in this matter and the great danger

to the health of the public and especially infant life, there was and is no way or means by which the legislature of Ohio could protect the people of Ohio, and especially infant children, from imposition and injury except by prohibiting the sale of condensed skimmed milk.

Recent scientific research supplemented by most extensive experimentation has demonstrated that the principal of growth is found in butter fat and is not present in skimmed milk or in any vegetable oil.

Appellees further deny that the Hebe is sold in every case under its distinctive name, but on the contrary aver that in the great majority of cases the retailers sell "Hebe" as condensed milk without qualification or explanation; that this fact is and was well known to appellants because even upon information they have not averred in the Bill of Complaint that "Hebe" is not sold by retailers in Ohio as and for condensed or evaporated milk.

BRIEF OF ARGUMENT.

I.

The food product "Hebe", whether a pure and wholesome product or not and whether plainly and fairly labeled or not, is within the condemnation of the legislation of the state of Ohio and may not lawfully be sold in Ohio.

Lewis' Sutherland Statutory Construction, pages 967 and 980.

Conrad vs. State, 75 O. S., 52.

U. S. vs. Hartwell, 73 U. S., 385.

State vs. Brown, 7 Oregon, 186.

- Bissot vs. State, 53 Ind., 408.
 Barker vs. State, 69 O. S., 68.
 State v. Vause, 84 O. S., 210, 215, 216.
 State vs. Coesend Creamery Co., 83
 Minn., 284.
 Genesee Valley Milk Products Co. vs.
 J. H. Jones Corporation, 143 App.
 Div. N. Y. 624, 626, 627.
 Commonwealth vs. Boston White Cross
 Milk Co., 209 Mass. 30.
 Hutchison Ice Cream Co. vs. Iowa, 242
 U. S., 153.
 Ryder vs. State of Maryland, 109 Md.,
 235.
 General Code of Ohio, Sections 12725,
 5774, 5778, 5785 and 12717.

II

The prohibition of the sale of the product "Hebe" in Ohio is not an unconstitutional interference with interstate commerce. The appellants are not entitled to be protected against interference with sales in the original packages and the prohibition of the statute is not repugnant to the Federal Food and Drugs Act.

- Brown v. Maryland, 25 U. S., 419.
 Leisy v. Hardin, 135 U. S., 100, 124.
 Schallenberger v. Pennsylvania, 171 U.
 S., 1.
 Purity Extract Co. v. Lynch, 226 U. S.,
 192.
 McDermott v. Wisconsin, 228 U. S., 115.
 Austin v. Tenn., 179 U. S., 343.
 Cook v. County of Marshall, 196 U. S.,
 261.

- Price v. Illinois, 238 U. S., 446.
 Armour v. North Dakota, 240 U. S., 510.
 Sligh v. Kirkwood, Sheriff, etc., 237 U. S., 52.
 Savage v. Jones, 225 U. S., 501
 Plumley v. Massachusetts, 155 U. S., 461.

III

The prohibition by the legislature of Ohio of the sale of "Hebe" in Ohio is a valid exercise of the police power of the state and is not invalid as a deprivation of liberty and property or as denial of the equal protection of the laws.

- Atlantic Coast Line Railroad Co. v. State of Georgia, 234 U. S., 280-288.
 Rast v. Van Deman & Lewis Co., 240 U. S., 342-357.
 Armour v. People, etc., 240 U. S., 510.
 Schmidinger v. Chicago, 226 U. S., 578.
 Powell v. Pennsylvania, 127 U. S., 678.
 Waite, et al. v. Macy, et al., 246 U. S., 606.
 People v. Biesecker, 169 N. Y., 53.
 In re Bresnahan, Jr., 18 Fed. Rep. 62.
 Butler v. Chambers, 36 Minn., 69.
 Toledo, Wabash & Western Ry. Co. v. Jacksonville, 67 Ill., 37, 40.
 State v. Hanson, 118 Minn., 85.
 Ex-parte Hayden, 147 Cal., 649.
 Rigbers v. City of Atlanta, 7 Ga. App. Rep. 411.
 Dorsey v. Texas, 38 Tex. Crim. Rep. 527.
 Commonwealth v. Waite, 11 Allen, 264.

State v. Capital City Dairy Co., 62 O. S.,
246. (Affirmed Capital City Dairy
Co. v. State, 183 U. S., 238).

State v. Rippeth, 71 O. S., 85, 87.

Jeffrey v. Blagg, 235 U. S., 571.

German Alliance Ins. Co. v. Kansas, 233
U. S., 389.

Lindsley v. Natural Carbonic Gas Co.,
220 U. S., 61.

Central Lumber Co. v. South Dakota,
226 U. S., 157.

People v. Marx, 99 N. Y., 377.

State v. Addington, 77 Mo., 110.

Powell v. Commonwealth, 114 Pa. St.,
265.

IV

The bill of complaint should be dismissed for want
of equity.

ANSWER TO ARGUMENT.

I.

The first argument made by Appellants in their brief is as follows:

"The food product 'Hebe', being a pure and wholesome product, plainly and fairly labeled, is not within the condemnation of the legislation of the State of Ohio, and may be lawfully sold in said State."

The language of the statute is so plain that anyone who runs may read it. Section 12725 of the General Code is as follows:

"Whoever * * * sells * * * condensed milk unless * * * it has been made from * * * milk, from which the cream has not been removed * * * shall be fined not less than \$50.00 nor more than \$200.00."

We see nothing to construe in this statute.

"Hebe" is condensed skimmed milk; it is admitted that 94% is skimmed milk. It is admitted that the cream has been removed from it and that the customers of Appellants are selling it in Ohio. The contents of Subdivision 1 of the argument in Appellants' brief from pages 15 to 37 inclusive, might be appropriate if addressed to a committee of the legislature which was determining whether we should have such legislation or not. We fail to see that it is relevant in a discussion such as ours. Counsel for Appellants cannot believe that it was intended by this section to absolutely prohibit the sale of such a wholesome and common article as condensed skimmed milk. The sale of skimmed milk is not

prohibited. There is nothing in the record to show that there is any demand in Ohio or elsewhere for condensed skimmed milk or that skimmed milk could be canned and sold for what the milk and the process cost. So far as the record shows, the people of Ohio are getting condensed milk in any quantities which they desire and the fact that the legislature has prohibited the sale of condensed skimmed milk affects no one so far as the record shows except the Appellants.

Throughout the whole case, testimony, briefs and all, we find the constant reiteration of the claim that the food product "Hebe" is pure and wholesome. We have admitted and admit now that it is pure in the sense that there is no dirt or any impurity in it, or that there is nothing in it except skimmed milk and cocoanut oil, but that does not meet the objections now before the Court and which will be fully and appropriately argued under other subdivisions. Skimmed milk lacks the important health ingredient of natural milk and no reiteration that it is pure and wholesome will make it milk or the equivalent of milk. The common experience and the common sense of mankind have established that no substitute has ever been found for butter fat. If such a substitute had been found, it would be known and used all over the world and its value would be the same as butter fat. The substitution of cocoanut oil for butter fat is the substitution of a cheaper and inferior food substance and no amount of argument can distract the attention of the Court from the actual adulteration in this case.

Preliminary to a consideration of this question, we recognize that the statute in question is a penal one and as such is to be strictly construed, but it is to be so construed in the light of another equally well settled rule of statutory construction that the primary purpose al-

ways is to ascertain and give effect to the intention of the legislature. This rule is well stated in

Lewis' Sutherland Statutory Construction, pages 967 and 980:

"The intent of a criminal statute may be ascertained from a consideration of all its provisions and that intent will be carried into effect. Such statutes will not be construed so strictly as to defeat the obvious intentions and purposes of the legislature."

Conrad vs. State, 75 O. S., 52. The court says at page 59:

"The rule as to the strict construction of penal statutes does not require us to go so far as to defeat the purpose of the statute by the technical application of the rule." Citing *United States v. Hartwell*, 73 U. S. 385, *State v. Brown*, 7 Oregon, 186; *Bissot v. State*, 53 Ind., 408.

The cases of *Barker v. State*, 69 O. S. 68, which is to the same effect, and *Conrad v. State*, *supra*, were cited with approval and followed by the court in the case of *State v. Vause*, 84 O. S. 210, 215, 216.

It is very plain that "Hebe", 94% of which is admittedly condensed skimmed milk, comes within the operation of the law quoted above.

It remains to consider the cases which counsel cite in their brief.

State v. Crescent Creamery Co., 83 Minn. 284. This case, cited on pages 24 and 25, presented a set of facts to the court where no cream could be sold which contained less than 20% of fat. The court held the statute to mean that no cream could be sold as cream which contained less than 20% of fat.

To have decided otherwise in the Minnesota case would have had the palpably absurd and unjust effect of preventing the sale of milk which, of course, never contains 20 % of butter fat. Therefore it was only selling the product with less percentage than 20% as cream.

The court which construes section 12725 has no such difficulty before it. The legislature of Ohio has enacted in what form and under what labeling skimmed milk may be sold to the people of Ohio. In order to prevent deception it cannot be condensed but it can be sold in an uncondensed form.

Genesee Valley Milk Products Co. v. J. H. Jones Corporation, 143 App. Div. N. Y. 624, 626, 627. This case was decided in 1911 by a court consisting of five judges. Two of the judges, Spring and Williams, dissented from the opinion. Judge McLennan lays down the proposition that regardless of the provisions of the New York statute, quoted by counsel on page 25, he thought it was not competent for the vendee to receive from his vendor certain property and thereafter sell such property at the market price and then in an action brought to recover the contract price, say: "I will not pay the vendor", especially when no damage has resulted to the vendee from such sale. The two remaining judges, Crews and Robeson, concurred with McLennan and the case seems to come into this discussion as an authority because McLennan, who thought that the vendee could not defend this case independent of any statute, agreed with Crews and Robeson.

Commonwealth v. Boston White Cross Milk Co., 209 Mass. 30. The defendant in this case was indicted under a statute which made it a criminal offense to sell milk to which water or any foreign substance had been added. At the trial it developed that the defendant had

added water to what is known as condensed milk and the court held that when the word "milk" was used in that statute it referred to whole milk and not to condensed milk. We do not consider this any authority in our case. Water is removed from condensed milk so as to decrease the bulk and it is expected, when it is used, that water will be added to it if it is desired to restore the product to its original condition as it came from the cow.

Hutchinson Ice Cream Co. v. Iowa, 242 U. S., 153,

This case is cited by counsel at pages 27 and 28 of their brief. It appears in Iowa and Pennsylvania there were statutes which prohibited the sale of ice cream containing less than a fixed per centage of butter fat. On page 158 the court by Mr. Justice Brandeis finds as a trade fact that ice cream is shown to be a generic term, embracing a large number and variety of products, and that the term as used does not necessarily imply a use of dairy cream in its composition and that according to some formulae vanilla ice cream might be made without any cream or milk whatsoever. The court here had before it a legislative enactment with words "embracing a large number and variety of products" and it there held that the statute referred to the sale of ice cream as ice cream. The court will readily distinguish the facts in this case from the facts in our case. Skimmed milk is not a generic term, means one thing and one thing only. The legislature of Ohio in passing the law could not mean anything at all except the one thing and that was milk from which the cream had been removed. We claim, therefore, that the case of *Hutchinson Ice Cream Co. v. Iowa*, being the interpretation of a generic term, is not an authority in our case where the interpretation

is of a term that is not generic and embraces a single thing.

On the other hand we submit to the court case of *Ryder vs. State of Maryland*, 109 Md., 235, the syllabus of which is as follows:

"Code, Article 27, section 235 (Act of 1900, Chap. 532) provides that no condensed or preserved milk shall be manufactured or sold unless it be made from pure milk, from which the cream has not been removed, either wholly or in part, nor unless it contain designated proportion of milk solids. *Held*, that this statute prohibits the sale of a product labeled as condensed skimmed milk, made from milk from which the greater part of the cream had been taken, although such product, manufactured in this manner, was not known when the act of 1900 was passed, and although Code, Article 27, Section 233, authorized the sale of skimmed milk when sold as such.

"The object of the statute is not to prevent fraud or imposition, but to prohibit the sale of an article considered by the legislature to be lacking in some of the qualities of healthy food, and hence it makes no difference that the article is not sold as condensed milk, but as condensed skimmed milk."

It is impossible for anyone to affirm that the legislature intended section 12725 to be interpreted differently than what its plain language compels, that is, that the sale of condensed skimmed milk is prohibited in Ohio. A study of this statute in connection with section 12720 abundantly justifies this conclusion. By section 12720 the legislature of Ohio declares that no skimmed milk can be sold in Ohio unless upon the can or container those words were set forth in uncondensed gothic type not less than two inches long. If we adopt

the construction which counsel for appellants seek to place upon section 12725, then the legislature said that any one could sell evaporated condensed milk if they sold it as and for evaporated condensed milk. Now we all know that fraud is more easily carried out in connection with condensed milk than whole milk. Condensed milk is sealed securely in a can, the consumer buys it at the grocery and takes it home and it may be days or weeks before he uses it and then he finds out for the first time what is in the can. If appellants' construction of section 12725 is to prevail, then the legislature of Ohio has left it to the conscience of the manufacturer to say what kind of label or advertisement shall be placed upon the can of condensed skimmed milk to warn the purchaser of its character *because there is no provision in any part of the statute for the labeling of condensed skimmed milk.*

Counsel for appellants quote 12725 of the General Code of Ohio and speak of this as the only statute which was urged as establishing the unlawfulness of the sale of "Hebe" in Ohio. Counsel are mistaken in this. There are other statutes of Ohio and the sale of "Hebe" comes squarely within the condemnation of their terms.

Section 5774

"No person, * * * shall manufacture for sale, offer for sale, sell or deliver * * * a drug or article of food which is adulterated within the meaning of this chapter."

Section 5778

"Food * * * are adulterated within the meaning of this chapter (1) if any substance or substances have been mixed with it, so as to lower or depreciate or injuriously affect its quality,

strength or purity; (2) if any inferior or cheaper substance or substances have been substituted wholly, or in part, for it; (3) if any valuable or necessary constituent or ingredient has been wholly, or in part, abstracted from it; (4) if it is an imitation of, or is sold under the name of another article; * * * (6) if it is colored, coated, polished or powdered, whereby damage or inferiority is concealed, or if by any means it is made to appear better or of greater value than it really is; * * * ”

Under favor of section 5778 we claim that “Hebe” contains cocoanut oil, which is inferior to and cheaper than butter fat, and that the cocoanut oil has been substituted for butter fat (Rec. p. 55-58), we claim that a valuable constituent or ingredient, namely, butter fat, has been removed from it, we claim that it is an imitation of and is sold under the name of another article, to-wit, milk, we claim that it is made to appear as whole milk, which is better and of greater value than skimmed milk or cocoanut oil, or both. We think that it will be conceded that barring any further statutes or exemption, “Hebe” falls squarely within the condemnation of sections 5774 and 5778.

Section 12717 provides as follows:

“Whoever sells * * * adulterated milk or milk to which water or any foreign substance has been added * * * shall be fined not less than fifty dollars nor more than two hundred dollars.”

Here we have statute 5774 denouncing the sale of an adulterated food, statute 5778 describing what an adulterated food is, and statute 12717 fixing the penalty for selling adulterated milk.

Under what statute do we find any exemption of "Hebe", from sections 5774 and 5778? There is some language in 5785 which has been mentioned in this connection, but counsel for Appellants, on page 35 of their brief, admit that this has nothing whatever to do with adulteration.

It is relevant to say further in this connection that sections 5775 and 5778 were passed by the legislature of Ohio, substantially in their present form, on March 20, 1884 (81 O. L. 67). Section 12725 appeared in substance on May 17, 1886 (83 O. L. 178). If, as appellants contend, it was and is, except for section 12725, lawful to sell "Hebe" as a compound, the legislature had that fact before it when it passed the law making the sale of all condensed skimmed milk unlawful. When the legislature came to the enactment of 12725 it knew, if the contention of Appellants is correct, that it was lawful to sell a product of 94% of skimmed milk and 6% of vegetable oil, and yet with this knowledge, it declared in language too plain to call for interpretation, that there should never be any kind of condensed milk sold in Ohio except one and that it should be made of milk from which no part of the cream had been removed.

In conclusion, and upon the subject of "Hebe" being a compound, we submit that the relative proportions of this product cannot be urged upon any sensible mind as a compound. The court will bear in mind that this is not a product of milk and vegetable oil, but it is a product of a vegetable oil and an adulteration under the law of Ohio; in other words, a product of a vegetable oil and milk from which the cream has been removed. If a food profiteer can take a widely known and indispensable article of food such

as whole milk, withdraw its most valuable ingredient and then in order to escape the condemnation of the statute add between 1-16 and 1-17 of a foreign article to it, then it would be easy to escape all of the provisions of the food and drug act by merely adding a small percentage of some unimportant and harmless article to an adulterated product and calling it a compound.

In conclusion we claim that the sale of the product known as "Hebe" is squarely within the condemnations of statutes 12725, 5774, 5778 and 12717 and that counsel cannot add a small percentage of a foreign substance to skimmed milk and change the latter to a compound.

ANSWER TO ARGUMENT.**II**

"If the legislation in question can be deemed to be applicable, the prohibition of the sale of this product in Ohio by the appellants' customers is an unconstitutional interference with interstate commerce.

The appellants are entitled to be protected against interference with their customers' sales in the original packages.

The prohibition of the statute is repugnant to the Federal Food and Drug Act."

This argument is subdivided into two parts, the first of which goes to the matter of interference with interstate commerce and the second to the matter of repugnancy to the Federal Food and Drugs Act.

We do not get clearly the position of counsel for Appellants under the first proposition. It might be inferred that their complaint is because the wholesale dealers, jobbers and distributors will be prosecuted for selling in the original packages, to-wit, the fibre shipping cases containing 48 one pound cans or 96 six ounce cans respectively, in which "Hebe" is brought into the state. If this is the only complaint they have, and if the complaint had any foundation, they did not need to come to the Supreme Court of the United States for relief. The Secretary of Agriculture will never prosecute any wholesalers, jobbers or distributors *unless they violate the law*. We supposed, and had a right to suppose, that Appellants went into this litigation for substantial results and by this we mean the right to enable their immediate purchasers to sell to retailers and thus market their product in the only

way that it can be disposed of. To this end they are trying to show that section 12725 is unconstitutional. If, however, the only claim they make is that the Secretary of Agriculture will begin suits against wholesalers, jobbers and distributors, Appellants have not made a case to this effect and they have no standing in court if they do.

In the first place the stipulations shown on pages 49, 50, 51, 52 and 65 of the record were prepared by counsel for Appellants and agreed to by Appellees. The stipulation quoted on page 39 of defendant's brief and shown on page 52 of the record is a copy of a notice served upon Appellants by the Secretary of Agriculture that "Hebe" cannot be sold or distributed in the State of Ohio from and after July 9, 1918, and if after that date said product be found upon the market, the Secretary will cause prosecutions to be brought against all wholesalers, jobbers, distributors and retailers selling the product known as "Hebe" in the State of Ohio.

The Secretary of Agriculture is not charged with the intention, without positive proof of the same, that he intended to prosecute these people unless they were violating the law. It was and is his intention to prosecute any violaters of the law. If it be found that any importer has broken his original package so as to lose the protection of the interstate commerce act, the Secretary of Agriculture would not be likely to waste time prosecuting him when he could solve the whole question by one or two prosecutions brought against retailers in different parts of the state.

Besides this, there is testimony in the case on page 49 of the record from which it may be fairly inferred

that the importers and wholesalers themselves violate the law. On page 49 we find the following stipulation:

"And said wholesale dealers, jobbers and distributors then sell said product to retail dealers (and in some instances directly to large consumers such as restaurants and hotels) in the state of Ohio."

It must be inferred that when necessary the original packages would be broken and smaller lots sold at times; there is no evidence to the contrary.

Besides this, if their only purpose is to prevent the prosecution of wholesalers, jobbers and distributors, they fail to make out one of the necessary allegations of their bill of complaint, and that is, that there will be a multiplicity of suits. In 1915 the appellants only had three customers in the State of Ohio (record page 51) and there is no evidence that they have any more customers at the present time.

The foregoing argument is based upon the supposition that Appellants admit the one pound and six ounce cans are not original packages but that the fibre cases containing 48 cans of one pound each or 96 cans of six ounces each are the original packages. If counsel for appellants claim otherwise there is a long line of authorities which establish the contrary.

Brown v. Maryland, 25 U. S. 419;
 Leisy v. Hardin, 135 U. S. 100, 124;
 Schallenberger v. Pennsylvania, 171 U. S.
 1;
 Purity Extract Co. v. Lynch, 226 U. S.
 192;
 McDermott v. Wisconsin, 228 U. S.
 115;

Austin v. Tenn., 179 U. S. 343;
 Cook v. County of Marshall, 196 U. S.
 261;
 Price v. Illinois, 238 U. S. 446;
 Armour v. North Dakota, 240 U. S. 510.

It seems to us that the decisions of the Supreme Court are so clear upon this subject that it is not necessary to discuss them further.

However, even if the pound and six ounce cans were the original packages, the appellants would have no standing in this court under the plea of interstate commerce.

Sligh v. Kirkwood, Sheriff, etc., 237 U. S. 52.

The court say on page 59:

"The power of the state to prescribe regulations which shall prevent the production within its borders of impure foods, unfit for use, and such articles as would spread disease and pestilence, is well established. * * * Nor does it make any difference that such regulations incidentally affect interstate commerce when the object of the regulations is not to that end, but is a legitimate attempt to protect the people of the state."

Savage v. Jones, 225 U. S. 501.

"But when the local police regulation has real relation to the suitable protection of the people of the state, and is reasonable in its requirements, it is not invalid because it may incidentally affect interstate commerce, provided it does not conflict with legislation enacted by congress pursuant to its constitutional authority."

Plumley v. Massachusetts, 155 U. S. 461.

"The statute of Massachusetts of March 10, 1891, Chapter 58, to prevent deception in the manufacture and sale of imitation butter in its application to the sales of oleomargarine, artificially colored so as to cause it to look like yellow butter, and brought into Massachusetts, is not in conflict with the clause of the constitution of the United States investing congress with power to regulate commerce among the several states."

Leisy v. Hardin, 135 U. S., 100, 124, is restrained in its application to the case there actually presented for determination, and held not to justify the broad contention that a state is powerless to prevent the sale of articles of food manufactured in or brought from another state, and subjects of traffic or commerce, if their sale shall cheat the people into purchasing something which they do not intend to buy, and which is wholly different from what its condition and appearance import.

Under the third subdivision of this argument we will submit the facts and testimony from the record which show that the whole plan and scheme of "Hebe" are based upon artifice and deception.

The second subdivision of this branch of the argument is based upon the alleged repugnancy of the Ohio statute to the Federal food and drugs act.

We take it from page 46 of the brief that this proposition is based upon the claim that the state of Ohio has prohibited and not attempted to regulate this product.

McDermott v. Wisconsin, 228 U. S. 115.

Appellants rely on this case and devote a number of pages of their brief to extracts from the opinion.

It is enough to say that in that case the state of Wisconsin ordered a federal label, properly affixed, to be removed and other labels of its own determination placed on the bottle. Thus the Wisconsin act was in direct conflict with the Federal act which covers the field.

It is not shown by any evidence whatever that the Ohio statutes are in conflict with any Federal statute and we do not understand that counsel for appellants make that claim. On page 46 they say that the officials of the Federal Department of Agriculture have held that "Hebe" is a mixture of evaporated skimmed milk and cocoanut fat and is considered to be a compound within the meaning of section 8 of the Federal act. (Record page 79). If this is the only claim that appellants make in this connection we submit that the officials of the Federal Department of Agriculture have no power to legislate and that if they had, the conclusions above mentioned are not legislation such as would cover the field and oust a state legislature from any right to legislate on the subject.

ANSWER TO ARGUMENT.**III**

Appellants make their third argument in the following language:

"The prohibition by the legislation in question, as construed by the court below, of the sale within the State of Ohio, of this product, concededly pure, wholesome and nutritious, is invalid as a deprivation of liberty and property and a denial of the equal protection of the laws, contrary to the Fourteenth Amendment."

Under this head we again meet the statement that Hebe is a pure food, wholesome and nutritious and elsewhere in the brief it is claimed that Hebe is the creation of a new product. There is no discovery of any new food here. It is simply a combination of two well known articles, adulterated or skimmed milk and a vegetable oil. Both skimmed milk and vegetable oils have been known since the dawn of history. The court will not forget, in answer to all this talk about prohibiting the sale of a pure food that the people of Ohio can get any quantity of skimmed milk and cocoanut oil which they see fit to buy. The legislature does not prevent the people from enjoying these foods. It seeks to prevent only the process of combining them in a form so that the people of Ohio will think they are buying and will buy one thing when they think they are buying another. The presumption is in favor of the constitutionality of the law and the burden is on appellants to show that it is unconstitutional. We are not required to prove even that those evils existed which the legislature believed in enacting this law.

Neither is any fancied inconvenience of the people of Ohio, in being obliged to use skimmed milk in an uncondensed form, to be weighed against the law.

Atlantic Coast Line Railroad Co. v. State
of Georgia 234 U. S., 280-288.

"But the court ruled that these 'possible inconveniences' could not affect the question of power in each state to make such reasonable regulations for any safety of passengers on interstate trains, as, in its judgment, all things considered, is appropriate and effective."

The burden of proof is on the appellants in this case to show that no set of facts can reasonably be conceived which would sustain this law, and it makes no difference that the facts may be disputed or their effect opposed by argument and opinion of serious strength, because it is not within the competency of the court to arbitrate in such contrariety.

Rast v. Van Deman & Lewis Co. 240
U. S. 342-357.

In other words the burden of proof is on the appellants to show that the legislature was so far wrong in enacting these statutes that the question is not even debatable.

Now what evils did the legislature seek to guard against?

In the first place skimmed milk and cocoanut oil are so prepared and sold as to make the public believe that they are getting natural milk in a condensed form, and the great sale of the product is made possible and practical by the deception which the retailers practice

upon the public and which the manufacturer knows will be practiced upon the public.

Carnation Milk as shown on Exhibit No. 15 (Record page 78) is standard milk. That is, it is whole milk from which the cream has not been removed. It may be used as an infant food if properly modified by a physician's advice, and the company advertises its brand of Carnation milk for that purpose. (Record pages 64 and 65). We learn from John L. Hutchinson's testimony (Record pages 83 and 84) of another brand of standard condensed milk called "Every Day". The testimony of Appellants' witnesses shows that evaporated or condensed milk is an article of wide use among the public and it is a fair inference that there are many different brands or trade names which indicate the various standard condensed milks on the market. Now we have before us for consideration another kind of condensed milk under the head of "Hebe" which is manufactured by the Carnation Milk Products Company. It is sold to the public in practically the same size cans as the standard milk (See Exhibit No. 10, which is a can of standard Carnation Milk, and Exhibit No. —, which is a can of Hebe milk). The labels are somewhat different but the label on Hebe milk (See Record page 3), says that this milk is suitable for coffee and cereals, for baking and cooking, all of them purposes for which whole milk is generally used and required by the buying public. In other words, the use, value and necessity of whole milk is an established fact upon which Hebe begins its work.

Is it susceptible of being used to defraud?

Charles F. Healy, one of the witnesses for Appellants and the Sales Manager of the Hebe Company,

gave some significant testimony on page 77, and his own testimony establishes the right of the legislature of Ohio to pass the law. He says

"That they distribute Hebe thru wholesale grocers; that to the best of witness' knowledge no wholesale grocer has sold Hebe other than as Hebe; that the witness has heard of retail grocers who had possibly sold Hebe as milk just as some persons might sell some other coffee as 'Reo' coffee or corn syrup as 'molasses'; that witness has written to plaintiff's salesmen and instructed them that the best future for Hebe was to sell it for what it is as a new food product, and not as milk; that the witness has repeatedly instructed all of plaintiffs' selling representatives that Hebe is a milk compound and must be sold as such, and that he has no knowledge that it was ever sold by the plaintiffs or by their salesmen as other than Hebe or as a compound."

Then we ask the Court to examine the Bill of Complaint, and they will find that while it is voluminous and exhaustive, no statement appears there that it is not sold by retailers as and for milk.

In this connection counsel for Appellants argue with an air of triumph that when they have put an analysis or statement of the contents on the the label of Hebe, they have done all that should be required of them, and that if a baby is stunted in its growth or if hundreds of thousands of poor people buy Hebe because they think it is milk and contains butter fat, the Company is absolved from all blame. The great bulk of mankind do not read what is on labels. Food profiteers understand this. No one would ever buy a can of Hebe unless he or she had previously bought a can of Carnation or other standard condensed milk.

The cans are the same size, the general appearance is the same and the word "condensed" or "evaporated" is used in each case, and hence we find the public buying one thing for another as experience shows it has done in the past.

Now what does the record show in regard to deception in sales? On page 79 of the record Arthur W. Reynolds, a major in the Quartermaster's Department at Camp Willis, near Columbus, Ohio, testified that in August of 1916 he let a contract for *evaporated milk* to the Monypeny-Hammond Company, one of the distributing agents of Appellants in Ohio, and the Monypeny-Hammond Company sent Hebe to the soldiers at that camp. The first lot was consumed and the fraud was not discovered until the second shipment was made when it was returned. Here was one of the three distributors of the Hebe Company in Ohio (Record page 9) contracting to deliver standard condensed milk, contracting to receive pay for it, and unable to resist the temptation to make the increased profit, sending in a commodity which cost it less money than standard condensed milk, palming off on soldiers of the United States an adulterated article when they were paid for furnishing a standard article.

Edwin James, an inspector of the Department of Agriculture (Rec. p. 81) goes into a store at Ironton, Ohio, and asks the clerk if they have any condensed milk and she answers that they had the Hebe Brand and he bought two cans. On the same day he went to another grocery store at East Ironton, Ohio, and asked if they had condensed milk and the storekeeper said "Yes, sir", and in response to the question as to what brands, the grocer stated he had Hebe.

In evidence on page 82 of the Record is an issue

of the Columbus Citizen of Friday, April 21, 1916, showing the advertisement by a retail grocery store of "Hebe Milk."

It will not do for Appellants to belittle this evidence and argue that Appellees should have secured more. It was possible to secure more, but this is uncontradicted and it shows the possibility of fraud and deception in this matter and furnishes an abundant ground for the exercise of the police power by the State of Ohio. It is for the judgment of the legislators of Ohio to determine whether its people could be protected by labeling or by prohibiting the combination of two foods in a form calculated to deceive.

Fraud by the appellants and their wholesale dealers is shown in the stipulation, at the bottom of page 49 of the record. Sales are made directly to restaurants and hotels. In such places people buy and have the right to expect real milk and real butter. Instead of that, Hebe, which is inferior and cheaper and therefore an adulteration under section 5778 G. C. of Ohio is palmed off on them. The guests who eat at the table do not see or read the labels on the cans, and neither did the soldiers at Camp Willis.

The next danger which the Legislature of Ohio had to guard against was the injury to the health of its people and especially to infant life. In feeding children all the chemical compositions of cow's milk must be present in proper proportion to give normal growth and development. (Rec. p. 122). Hebe, being an adulteration and therefore cheaper, would be readily bought by the poorer classes of people and used for the purpose of feeding infants. If infants were fed upon this skimmed milk and vegetable oil, their growth would cease and if long persisted in, they would die.

The burden of proof is on Appellants to show that this state of facts is not reasonable, or in short that it is not even debatable.

Hebe is a product of skimmed milk and a vegetable oil. Dr. E. V. McCollum (pages 99 and 100 of the Record) details the results of three thousand carefully conducted feeding experiments, and has never been able to get the unknown substance (the mysterious principle of growth in milk) from any plant or vegetable oil. John L. Hutchinson testifies to the same effect on page 87 of the Record, Oscar C. Erf on page 122 and Arthur G. Helmick on pages 121 and 122. On page 61 Dr. E. J. Wilson, a witness for Appellants, says that he is not prepared to say that Hebe has been used for infant feeding, and that he does not think he would prescribe Hebe to be given to a child instead of milk. On page 60 Dr. Wilson says that Hebe contains the features and elements that *ought* to sustain life. On page 61 he says that he does not think Hebe would be an infant food, and we submit that the cross examination of Dr. Wilson alone shows enough uncertainty to warrant and sustain the action of the Legislature. Against this the Appellants were contented to rest their case upon the testimony of Curtis C. Howard, a Columbus chemist, and John A. Wesener, a Chicago chemist. It is worthy of note that the witnesses testifying for Appellees on this subject are men of high scientific attainment, who foregoing the profit which might be derived by commercializing their knowledge, see fit to continue in public service, with its notoriously inadequate rewards, giving up their lives in the quest of truth and for the benefit of humanity.

Now how stands the testimony in this particular? It devolves upon Appellants to show that the question

is not debatable. We claim that in fairness of statement, extent of research and weight of reasoning the witnesses for Appellees far surpass those for Appellants and all that we are called on to do is to show that the question is debatable.

Counsel urge that this provision is prohibitive and not regulatory. We deny this. Section 12720 of the General Code of Ohio enables the people of that state to get all the skimmed milk that they want and the danger from fraud in connection with this product was so great that the Legislature required every package containing skimmed milk to be distinctly marked in uncondensed Gothic letters not less than one inch in length. The Legislature of Ohio has made it impossible for its people to get skimmed milk in a condensed form. In other words, it enables them to get all the skimmed milk that they desire, but takes away from them the opportunity of getting it in a condensed form. If the Supreme Court of the United States has said that it is lawful to prevent the people of a state from having lard unless it is bought in cans or tubs of a certain size, (*Armour v. People*, etc., 240 U. S., 510), and if it has declared it lawful to prevent the people of a great city from getting bread unless it is baked in loaves of a certain size, (*Schmidinger v. Chicago*, 226 U. S. 578), we claim that the Legislature of Ohio is within its powers when it guards against dangers which are real in its estimation by preventing its people from getting skimmed milk in a condensed form.

Even if it were a case of prohibiting the sale of a product it is within the power of the State of Ohio to do so.

Powell v. Pennsylvania, 127 U. S. 678.

"Whether the manufacture of oleomargarine, or imitation butter, involves such danger to the public health as to require its entire suppression, rather than its regulation in such manner as to permit the manufacture and sale of articles of that class that do not contain noxious ingredients, is a question of fact and of public policy, which belongs to the legislative department to determine.

"The legislative determination of such question is conclusive upon the courts, unless it appears upon the face of the statute, or from facts of which the courts must take judicial cognizance, that the statute infringes rights secured by the fundamental law.

"Although legislation on this subject may be unwise, or unnecessarily oppressive to those manufacturing or selling wholesome oleomargarine as an article of food, yet the courts cannot interfere without usurping powers committed to another department of government; the appeal must be to the Legislature or to the ballot box, not to the judiciary."

The attempt to distinguish this case, made by counsel on page 58 of their brief, must fail. In regard to the question of prohibiting the sale of wholesome food in the Powell case, it is answered squarely by the last paragraph of the syllabus mentioned above.

A number of state cases are cited by counsel, but the only other Supreme Court case mentioned in the third subdivision of their brief is

Waite, et al v. Macy, et al, 246 U. S. 606.

This case, like many others cited by counsel, throws no light whatever on our controversy. It was there decided that the statute provided that tea could be excluded from import only on the ground of inferiority to

the standard in purity, quality and fitness for consumption. Tea was excluded on the ground that it contained a minute and noxious quantity of coloring matter and this was done under favor of a regulation of the secretary of the treasury.

The court found that the requirements of the statute were met and that the secretary and the board must keep within the statute. It was entirely a matter of applying the facts of the case to the statute and ignoring the rule of the secretary of the treasury, which the latter did not have the right to make.

We will briefly allude to the state cases cited by counsel.

People v. Biesecker, 169 N. Y., 53.

In this case the Supreme Court of New York followed the case of *People v. Marx*, 99 N. Y., 377, and a statute similar in form was sustained in the case of *State v. Addington*, 77 Mo., 110. The court in its opinion, on page 118, give the reason for their decision which may be read with profit in this case:

"The central idea of the statute before us seems very manifest; it was, in our opinion, the prevention of facilities for selling or manufacturing a spurious article of butter, resembling the genuine article so closely in its external appearance, as to render it easy to deceive purchasers into buying that which they would not buy except for the deception."

The same statute was held constitutional in *In re Bresnahan, Jr.*, 18 Fed Rep., 62.

A similar statute was held to be constitutional in the case of *Pozzell v. Commonwealth*, 114 Pa. St., 265, and also in the case of *Butler v. Chambers*, 36 Minn. 69.

Toledo, Wabash & Western Ry. Co. v. City of Jacksonville, 67 Ill., 37, 40.

In this case a city ordinance was before the court and the court held that a requirement from a railroad company to keep a flagman by day and a red lantern by night at a certain street crossing when the company had only a single track, and over which only its usual trains passed and where it did not appear that such crossing was unusually dangerous, was an unreasonable requirement. This was decided on its own peculiar set of facts and gives no aid in the consideration of this question.

State v. Hanson, 118 Minn., 85.

As stated above, the Supreme Court of Minnesota had previously held by a full court that such a law was constitutional, and in this case by a divided court a provision of a new law which prohibited instead of regulating was held to be unconstitutional. The court divided three to two on the question.

Ex Parte Hayden, 147 Cal., 649.

This was a case where a statute required all fruit shipped to be labeled with the county and locality where the same was grown. The court found as a matter of fact that the true purpose of the act was to obtain for the fruit growers of some well advertised and favored locality an advantage for the disposition of their own fruit. This case was decided upon its peculiar facts and affords no light in our case.

Rigbers v. City of Atlanta, 7 Ga. App Rep., 411.

While there is considerable discussion of the general subject, we submit that in this case the court held that a municipality, under its general welfare clause,

could prohibit the sale of adulterated ice cream, but could not arbitrarily prescribe that ice cream should not be sold at all, if it contained less than a certain percentage of butter fats. We understand this to turn on the question of the construction of a certain general welfare clause in the charter of a municipality and we do not consider it authority in this case.

Dorsey v. Texas, 38 Tex. Crim. Rep. 527.

In this case the court of criminal appeals of the State of Texas adopts the dissenting opinion of Judge Gordon in the case of *Powell v. Commonwealth*, 114 Pa. St., 265.

We think that we have covered all the cases cited under this branch of the argument, but the main contention of counsel is that the legislature cannot prohibit the combination of two wholesome articles of food.

This is not the first time that such a claim has been before the court.

Commonwealth v. Waite, 11 Allen, 264.

The court say on page 265:

"The defendant in this case contends that the statute is unconstitutional, because it is in derogation of common right. The substance of the argument is this: it is innocent and lawful to sell pure milk and it is innocent and lawful to sell pure water; therefore the legislature has no power to make the sale of milk and water, when mixed, a penal offense, unless it is done with a fraudulent intent. But it is notorious that the sale of milk adulterated with water is extensively practiced with fraudulent intent. It is for the legislature to judge what reasonable laws ought to be enacted to protect the people against this fraud, and to adapt the protection to the nature of the case. They have

seen fit to require that every man who sells milk shall take the risk of selling a pure article. No man is obliged to go into the business; and by using proper precautions any dealer can ascertain whether the milk he offers for sale has been watered. The court can see no ground for pronouncing the law unreasonable, and has no authority to judge as to its expediency."

The Supreme Court of Ohio has declared the constitutional right to enact statutes pertaining to foods, drugs and dairy products.

State v. Capital City Dairy Co., 62 O. S., 246.

Affirmed in *Capital City Dairy Co. v. State*, 183 U. S. 238.

State v. Rippeth, 71 O. S., 85, 87.

We do not claim that the statutes dealing with condensed and skimmed milk were involved in those cases, but the rules which pervade those sections are similar in character to those which govern the manufacture and sale of butter, oleomargarine and other foods.

In the language of the Court below in this case:

"They forbid the practice of fraud upon the general public. They seek to suppress false pretenses and to promote fair dealing and the public health in the selling of an article of food. They do not prohibit the manufacture and sale of all condensed milk but guarantee to consumers a pure dairy product and prevent the sale of an adulterated or deceptive article. The constitution of the United States does not secure to any one the privilege of manufacturing and selling an article offered in such manner as to induce purchasers to believe they are buying something which is in fact different from that which is offered for sale."

In regard to the alleged contravention by the Ohio statute of the 14th amendment of the Federal Constitution, a sharp line is drawn between condensed milk made in accordance with the terms of the statute and all milk produced otherwise. There is uniformity in the law and it operates equally upon all classes of people.

In the case of *Jeffrey v. Blagg*, 235 U. S., 571, Mr. Justice Day said (p. 576):

"This court has many times affirmed the general proposition that it is not the purpose of the Fourteenth Amendment in the equal protection clause to take from the statutes the right and power to classify the subjects of legislation. It is only when such attempted classification is arbitrary and unreasonable that the court can declare it beyond the legislative authority.

"That the law may work a hardship and inequality is not enough. Many valid laws from the generality of their application necessarily do that, and the legislature must be allowed a wide field of choice in determining the subject matter of its laws and what shall come within them and what shall be excluded."

In the case of *Rast v. Van Deman and Lewis*, 240 U. S., 342, Mr. Justice Kenna said (p. 357):

"It is established that a distinction in legislation is not arbitrary if any state of facts reasonably can be conceived that would sustain it, and the existence of that state of facts at the time the law was enacted must be assumed. It makes no difference that the facts may be disputed or their effect opposed by argument and opinion of serious strength."

The same Justice McKenna, speaking in *German Alliance Ins. Co. v. Kansas*, 233 U. S. 389, said (at page 418):

"Legislative classification may rest on narrow distinctions. Legislation is addressed to evils as they appear and even degrees of evil may determine its exercise."

In the case of *Lindsley v. Natural Carbon Gas Co.*, 220 U. S., 61, a case frequently cited by the Supreme Court of the United States, Mr. Justice Vandevanter said (p. 78):

"The equal protection clause of the Fourteenth Amendment does not take from the state the power to classify in the adoption of police laws, but admits of the exercise of a wide scope of discretion in that regard."

"When the classification in such a law is called in question, if any state of facts reasonably can be conceived that would sustain it, the existence of that state of facts at the time the law was enacted must be assumed."

"One who assails the classification in such a law must carry the burden of showing that it does not rest upon any reasonable basis, but is essentially arbitrary."

In *Central Lumber Co. v. South Dakota*, 226 U. S., 157, Mr. Justice Holmes, indisscussing the power of the legislature to classify, said (p. 160):

"It may direct its law against what it deems the evil as it actually exists without covering the whole field of possible abuses, and it may do so none the less that the forbidden act does not differ in kind from those that are allowed."

To sum up, the holdings of these cases may be said to be:

(a) The Fourteenth Amendment does not prevent classification of subjects of legislation.

(b) Legislation may be directed at evils as they appear, and classification may be determined by the degrees of evil.

(c). The necessity for classification is a question for the legislature, and courts should not disturb their decision, unless it appears beyond doubt that such classification is arbitrary and unreasonable.

(d) The existence of facts justifying the action of the legislature will be assumed and the burden is on the one who attacks the statute to show the opposite. Such showing must consist of more than mere difference of opinion, however serious or strongly supported.

In conclusion, under this subdivision of the argument we claim that section 12725, even if it were prohibitive, would be constitutional both on the ground of deception and danger to public health, especially to infant life, that it is not prohibitive but regulatory inasmuch as the opportunity to use skimmed milk is secured to the people of Ohio and they are denied its use only in one form and it is not shown that it would be commercially practicable or possible to manufacture or sell it in that form, that the evidence in this case clearly shows not only that the question is debatable but that the evils against which the legislature sought to protect the public were real and called for such legislation.

IV.

The Bill of Complaint should be dismissed for want of equity.

The court below said:

"Purchasers of an article of food which may be and is used to deceive the public are not favored in courts of equity."

Appellants in this case appear, not as the manufacturers or discoverers of any new food, but come before this court with the combination of two well known commodities, one adulterated or skimmed milk and the other cocoanut oil. Nobody claims that the skimmed milk is any better than whole milk or that the cocoanut oil is any better or even equal to butter fat. It is not shown that the people of Ohio have not had abundant opportunities to get all the skimmed milk and all of the cocoanut oil which they desire. While counsel for appellants argue strenuously the merits of condensed skimmed milk and of cocoanut oil, there is nothing shown as to the value or importance of this combination. It is true that there is evidence to show that "Hebe" has had a large sale, but how is the public benefited by the combination as compared with the articles taken separately? The common sense of the court will gather from the record that the public buys this because it is similar to another article.

Carnation Condensed Milk, Every Day Condensed Milk and other brands of standard condensed milk under many names are on the market and evidently fill a want of the public. Milk is one of the most important and is certainly the most indispensable of all human foods. Being perishable in its nature, it is not always

possible to have it ready for use but the condensing or evaporating of it has done away with this difficulty. The Carnation Milk Products Co. and other great corporations have distributed their products until in hundreds and thousands of homes condensed or evaporated milk is as well known as ordinary milk.

Now a combination which, even with a label on it, will lead the people into believing that they are buying milk, must have that ready sale which every shrewd imitation will have with the buying public. It is this feature which caused the sale of "Hebe"—nothing else. If every purchaser of "Hebe" were told plainly that all of the cream had been taken out of the can and a cheaper vegetable oil substituted for it, there would not be one sale where there are thousands at the present time. The retailer knows this. The wholesaler manufactures it with this knowledge and expectation in mind. The retail grocer advertises it as "Hebe" milk in the newspaper. When asked if he has evaporated milk, the retail grocer answers "Yes", and says that he has "Hebe" brand. He buys it for less and he can sell it for less. The distributor, having a contract to sell evaporated milk to soldiers of the United States Government, can make a profit by slipping in "Hebe" because the butter fat has been drawn out of it and the milk adulterated by adding a cheaper substance. The poorer class of people will buy "Hebe" because it is cheaper, and the mother who is feeding her infant on standard condensed milk gets the principal of growth which not only nourishes the infant but promotes its growth. "Hebe" does not have this growth promoting quality in it and a child fed on it exclusively will become stunted and die. All these things are known to the manufacturer as well as to the legislature.

We therefore submit that the complainants are not in court with clean hands. They have launched a combination which is actually made an instrument of fraud and deception. Their Bill of Complaint is without equity and should be dismissed.

JOSEPH MCGHEE,

Attorney General of the State of Ohio.

LOUIS D. JOHNSON,

CHARLES J. PRETZMAN,

Of Counsel for Appellees.



SUPREME COURT OF THE UNITED STATES.

No. 664.—OCTOBER TERM, 1918.

The Hebe Company and Carnation Milk
Products Company, Appellants,
vs.
Norman E. Shaw, Secretary of Agriculture
of Ohio, and Thomas C. Gault,
Chief of Bureau of Dairy and Foods of
the Board of Agriculture of Ohio.

Appeal from the District
Court of the United
States for the South-
ern District of Ohio.

[January 7, 1919.]

Mr. Justice HOLMES delivered the opinion of the Court.

This is a bill in equity brought to restrain prosecutions threatened against the plaintiffs and their customers for selling a food product of the plaintiffs called Hebe, the bill being based upon the destruction of the plaintiffs' business which it is alleged will ensue. The prosecutions are threatened mainly or wholly under certain statutes of Ohio which, the plaintiffs argue, do not bear the construction put upon them by the defendants, or, if they do, are bad under the Fourteenth Amendment to the Constitution of the United States and the Commerce Clause. Article I, Section 8. A similar case was heard before three judges. By agreement the evidence in that case was made the evidence in this. The District Judge adopted the opinion of the three and dismissed the bill.

Hebe is skimmed milk condensed by evaporation to which six per cent. of cocoa nut oil is added by a process that combines the two. It is sold in tin cans containing one pound or six ounces of the product and labelled "Hebe A Compound of Evaporated Skimmed Milk and Vegetable Fat Contains 6% Vegetable Fat, 24% Total Solids." with the place of manufacture and address of the Hebe Company. On the side of the label are the words "For Coffee and Cereals For Baking and Cooking." By § 12725 of the General Code of Ohio "Whoever manufactures, sells, exchanges, exposes or offers for sale or exchange, condensed milk unless it

has been made from . . . unadulterated . . . milk, from which the cream has not been removed and in which the proportion of milk solids shall be the equivalent of twelve per cent. of milk solids in crude milk, twenty-five per cent. of such solids being fat, and unless the package, can or vessel containing it is distinctly labelled, stamped or marked with its true name, brand, and by whom and under what name made", is subject to a fine, and for each subsequent offense to a fine and imprisonment. The first question is whether Hebe falls within these words.

It is argued that, as Hebe is a wholesome or not unwholesome product, the statutes should not be construed to prohibit it if such a construction can be avoided, and that it can be avoided by confining the prohibition to sales of condensed milk as such, under the name of condensed milk, as was held with regard to ice cream in *Hutchinson Ice Cream Company v. Iowa*, 242 U. S. 153. But the statute could not direct itself to the product as distinguished from the name more clearly than it does. You are not to make a certain article, whatever you call it, except from certain materials—the object plainly being to secure the presence of the nutritious elements mentioned in the act, and to save the public from the fraudulent substitution of an inferior product that would be hard to detect. *Savage v. Jones*, 225 U. S. 501, 524. By § 5778 a food is adulterated if a valuable ingredient has been wholly or in part abstracted from it, and the effect of this provision upon skimmed milk is qualified only by § 12720 which states the stringent terms upon which alone that substance can be sold. It seems entirely clear that condensed skimmed milk is forbidden out and out. But if so the statute cannot be avoided by adding a small amount of cocoa nut oil. We may assume that the product is improved by the addition, but the body of it still is condensed skimmed milk, and this improvement consists merely in making the cheaper and forbidden substance more like the dearer and better one and thus at the same time more available for a fraudulent substitute. It is true that so far as the question of fraud is concerned the label on the plaintiffs' cans tells the truth—but the consumer in many cases never sees it. Moreover when the label tells the public to use Hebe for purposes to which condensed milk is applied and states of what Hebe is made, it more than half recognizes the plain fact that Hebe is nothing but condensed milk of a cheaper sort.

We are satisfied that the statute as construed by us is not invalidated by the Fourteenth Amendment. The purposes to secure a certain minimum of nutritive elements and to prevent fraud may be carried out in this way even though condensed skimmed milk and Hebe both should be admitted to be wholesome. The power of the legislature "is not to be denied simply because some innocent articles or transactions may be found within the proscribed class. The inquiry must be whether, considering the end in view, the statute passes the bounds of reason and assumes the character of a merely arbitrary fiat." *Purity Extract & Tonic Co. v. Lynch*, 226 U. S. 192, 204. If the character or effect of the article as intended to be used "be debatable, the legislature is entitled to its own judgment, and that judgment is not to be superseded by the verdict of a jury," or, we may add, by the personal opinion of judges, "upon the issue which the legislature has decided." *Price v. Illinois*, 238 U. S. 446, 452. *Rast v. Van Deman & Lewis Co.*, 240 U. S. 342, 357. The answer to the inquiry is that the provisions are of a kind familiar to legislation and often sustained and that it is impossible for this Court to say that they might not be believed to be necessary in order to accomplish the desired ends. See further *Atlantic Coast Line R. R. Co. v. Georgia*, 234 U. S. 280, 288.

With regard to the other objection urged, the statute "was not aimed at interstate commerce but without discrimination sought to promote fair dealing in the described articles of food." *Savage v. Jones*, 225 U. S. 501, 524. The defendants disclaim any intention to interfere with the sale of the goods in the original packages by the consignee, and if the record is thought to raise a doubt with regard to that it may be met by a modification of the decree so as to leave it without prejudice in case prosecutions should be threatened or attempted for such sales. Some question was raised as to whether the individual can was not to be regarded as the original package. But it appears that the cans are brought from Wisconsin, where Hebe is manufactured, into Ohio in fibre cases containing forty-eight one-pound cans or ninety-six six-ounce cans. The cases are the original packages so far as the present question is concerned, *Austin v. Tennessee*, 179 U. S. 343, although no doubt, as shown by *McDermott v. Wisconsin*, 228 U. S. 115, 136, the power of Congress to regulate interstate commerce would extend for some

4 *The Hebe Co. and Carnation Milk Products Co. vs. Shaw.*

purposes to the cans. The Food and Drugs Act of June 30, 1906, c. 3915, 34 Stat. 768, dealt with in *McDermott v. Wisconsin*, does not prevent state regulation of domestic retail sales. *Armour & Co. v. North Dakota*, 240 U. S. 510, 517. *Weigle v. Curtice Brothers Co.*, decided today. Indirect effects upon interstate commerce do not invalidate the act. *Sligh v. Kirkwood*, 237 U. S. 52, 61. *Savage v. Jones*, 225 U. S. 501, 525.

Decree affirmed.

A true copy.

Test :

Clerk, Supreme Court, U. S.

SUPREME COURT OF THE UNITED STATES.

No. 664—OCTOBER TERM, 1918.

The Hebe Company and Carnation Milk
Products Company, Appellants,

vs.

Norman E. Shaw, Secretary of Agriculture of Ohio, and Thomas C. Gault,
Chief of Bureau of Dairy and Foods of
the Board of Agriculture of Ohio.

Appeal from the District
Court of the United
States for the South-
ern District of Ohio.

[January 7, 1919.]

Mr. Justice DAY, with whom concurred Mr. Justice VAN DEVANTER
and Mr. Justice BRANDEIS, dissenting.

The right to prohibit the sale of plaintiffs' product in the State of Ohio is mainly rested upon Section 12,725 of the General Code of that State. In the absence of a construction by the Supreme Court of Ohio, we must interpret the statute ourselves. We have been unable to come to the conclusion, reached by the majority of the court, as to the meaning of the law. As the result of this decision is to exclude from sale in the State of Ohio, a food product not of itself harmful, but shown to be wholesome, we shall briefly state the reasons which impel the dissent.

Section 12,725 of the General Code of Ohio reads:

"Whoever manufactures, sells, exchanges, exposes or offers for sale or exchange, condensed milk unless it has been made from pure, clean, fresh, healthy, unadulterated and wholesome milk, from which the cream has not been removed and in which the proportion of milk solids shall be the equivalent of twelve per cent. of milk solids in crude milk twenty-five per cent. of such solids being fat, and unless the package, can or vessel containing it is distinctly labeled, stamped or marked with its true name, brand, and by whom and under what name made, shall be fined not less than fifty dollars nor more than two hundred dollars, and, for each subsequent offense, shall be fined not less than one hundred dollars nor more than five hundred dollars and imprisoned not less than ten days nor more than ninety days."

The statute defines a crime, and the question is not different than it would be if the plaintiffs were indicted for its violation. While

all statutes are to receive a reasonable interpretation, those of a criminal nature are not to be extended by implication. Condensed milk when this statute was passed was well known to be milk from which a considerable portion of water had been evaporated. Condensed milk to be what its name imports must be made from whole milk. If not so manufactured, the legislature has the right to provide that the public shall be advised of the treatment to which it has been subjected. Skimmed milk, conspicuously labelled as such, may be sold in the State of Ohio. (Sec. 12,720, Gen. Code, Ohio.) The legislature has shown no intention to condemn it as an unwholesome article of food. It is not less so when condensed.

We are unable to find in these statutes anything which prohibits the sale of condensed, skimmed milk when it is a part of a wholesome compound sold for what it really is, and distinctly labeled as such. In the section under consideration, 12,725, the Ohio legislature was not dealing with compounds. It was undertaking to assure the purity of a well-known article of food—condensed milk. The statute provides that such condensed milk so offered for sale shall be made of pure, clean, fresh, unadulterated and wholesome milk from which the cream has not been removed, and that the can containing it shall be distinctly labeled with its true name. With deference to the contrary view, it seems to us that reading the statute in the light of its purpose to require condensed milk to be made from whole milk and sold for what it is, the necessary result is to exclude the plaintiffs' compound from the words and meaning of the Act. It is not evaporated milk, and makes no pretense of being such. It is a food compound consisting in part of condensed skimmed milk. It is so labeled in unmistakable words in large print on the can containing it. The label states with all the emphasis which large type can give that it is a compound made of "evaporated skimmed milk and vegetable fat." The proportions of the ingredients are stated. The striking label does not describe condensed milk, and he who reads it cannot be misled to the belief that he is buying that article. It is shown to be wholesome and clean and free from impurities.

It seems to us that the case is within the principle stated by this court in *Hutchinson Ice Cream Company v. Iowa*, 242 U. S. 153, in which a statute forbidding the sale as ice cream of an article not containing a certain portion of butter fat was sustained

as within the police power of the State. The statute was construed by the highest court of the State where it was produced to include articles sold as ice cream; thus interpreted, we held it to be a constitutional exercise of the police power of the State. So here, we think the legislature of Ohio intended to deal with condensed milk when sold as such, and to make it an offense to sell it when of less than the required purity.

It may be conceded that the statute would include such an article when not up to the standard, but sold for the real thing. The public is entitled to protection from deception as well as from impurity. This principle seems to have controlled the decision of the District Court. The record discloses that in one or more instances dealers had supplied this article as condensed milk. But an act or two of this sort by fraudulent dealers ought not to be the test of the plaintiffs' right, or control the meaning of this statute. If such were the case, very few food compounds would escape condemnation. The few instances of deception shown had not the sanction of plaintiffs' authority. Such acts did violence to the plain terms in which the plaintiffs printed label disclosed that its product was a compound and defined its parts. The label so truly expresses just what the substance is, that it is difficult to believe that any purchaser could be deceived into buying the article for something other than it is.

The interdiction of the State Board is not against the sale of this article as condensed milk, but of all sales of this compound in the State of Ohio. In our view this criminal statute, rightly interpreted, does not embrace the plaintiffs' product, and that reason alone should be sufficient to warrant a reversal of the decree.

A true copy.

Test :

Clerk, Supreme Court, U. S.